

**BANCO NACIONAL DE LÍNEAS CELULARES (TRONCALES)**  
*National Bank of Stem Cell Lines*  
**IMPRESO DE SOLICITUD DE REGISTRO Y DEPÓSITO DE UNA LÍNEA iPS HUMANA**  
*Application Form to Register and Deposit of an human iPS cell line*

**FECHA:** 23.01.2019

**DOCUMENTOS QUE DEBEN ACOMPAÑAR LA SOLICITUD:**

*Attached documents:*

- Copia de la autorización del proyecto en el cual se genera la línea celular, junto con informe favorable del Comité Ético del centro de procedencia.**  
*A copy of the project authorization in which the cell line is obtained along with a favourable report of the Clinical Research Ethics Committee*
- Copia de cualquier publicación científica relacionada con la línea iPS generada.**  
*A copy of any relevant published scientific papers related to the iPS cell line generated*
- C. V. del investigador principal (una página; formato libre).**  
*A one page CV from the Principal Investigator*

**SECCIÓN 1-INFORMACIÓN DE LA MUESTRA ORIGINAL Y DE LA iPS GENERADA.**

*Section 1-Information of the original cell line and the generated iPS*

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                             |                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Nombre de la línea iPS</b><br><i>Name of the iPS line:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | CT PBiPS1-Sv4F-1                                                                            |                                                                                                                                                                   |
| <b>Muestra original donada.</b><br><b>Detallar tipo de célula, tejido de origen y localización anatómica de la muestra biológica de la que se obtiene la línea original.</b><br><b>Si son células comerciales, detallar nombre, referencia y distribuidor comercial</b><br><i>Original sample donated.</i><br><i>Detail cell type, tissue of origin and anatomic location of the biological sample from which the original line is obtained.</i><br><i>If cells are commercial, detail name, reference and trade distributor.</i> | Células mononucleadas de sangre periférica<br><br><i>Peripheral Blood Mononuclear Cells</i> |                                                                                                                                                                   |
| <b>Sexo y edad del donante.</b><br><i>Sex and age of the donor</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Masculino, 7 años                                                                           | Male, 7 years                                                                                                                                                     |
| <b>¿El donante tiene alguna patología?</b><br><i>Has the donor any pathological condition?</i>                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>NO</b> <input type="checkbox"/><br><i>No</i>                                             | <b>SÍ</b> <input checked="" type="checkbox"/> (especificar) <i>Cardiotoxicidad a las antraciclinas</i><br><i>Yes (specify) Cardiac toxicity to anthracyclines</i> |
| <b>¿La patología es de origen genético?</b><br><i>Is the pathological condition of genetic origin?</i>                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>NO</b> <input checked="" type="checkbox"/><br><i>No</i>                                  | <b>SÍ</b> <input type="checkbox"/> (especificar)<br><i>Yes (specify)</i>                                                                                          |

|                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Muestra biológica recibida</b><br><i>Biological sample</i>                                                                                                                                                                                                                                     | <b>Fresco</b> <input checked="" type="checkbox"/> <b>Crioconservado</b> <input type="checkbox"/><br><i>Fresh</i> <i>Cryopreserved</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Fecha de la donación de la muestra biológica</b><br><i>Date of donation of the biological sample</i><br>7.06.2018                                                                                                                                                                              | <b>Fecha del uso o descongelación</b> <i>(si congelado)</i><br><i>Date used or thawed (if frozen)</i><br>7.06.2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Condiciones de cultivo de las células de origen (células somáticas/cultivo primario).</b><br><i>Culture conditions of the original cells (somatic cells / primary culture)</i>                                                                                                                 | Medio de cultivo/ Culture media:<br>RPMI + 10%FBS + 0,5% Penicilin-Streptomycin (Gibco, InVitrogen corporation).<br><br>37°C- 5%CO2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Identificación celular: Huella genética por análisis de microsatélites/STR de las células de origen</b><br><i>Cell Identity: Genetic fingerprinting by microsatellite analysis / STR of the original cells.</i>                                                                                | Los marcadores de microsatélites de la muestra inicial coinciden con los de la línea de iPSc generada (Anexo 5)<br><br><i>Microsatellite markers of the initial sample are identical to the markers of the iPSc line (Annex 5)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>¿Hay disponibilidad de viales congelados de las células de origen? ¿En qué pase?</b><br><i>Is there availability of frozen vials of original cells? At what passage?</i>                                                                                                                       | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Método utilizado en la generación de la línea iPSc. (Integrativa/ No-integrativa) Especificar factores y plásmidos de reprogramación utilizados.</b><br><i>Method used for the generation of iPSc line (Integrative / Non-integrative) Specify factors and plasmids used for reprogramming</i> | Generación de las células de pluripotencia inducida (iPSC) a partir de células mononucleadas de sangre periférica de un paciente que presenta cardiotoxicidad a las antraciclinas, con el kit de reprogramación CytoTune®-iPS 2.0 Sendai, un sistema no integrativo que utiliza vectores del virus Sendai. Este kit incluye tres vectores: policistrónico Klf4-hOct3/4-Sox2, cMyc y Klf4.<br><br><i>The induced pluripotent stem cells (iPSC) were generated from Peripheral Blood Mononuclear Cells from a patient showing cardiotoxicity to anthracyclines, with the CytoTune®-iPS 2.0 Sendai Reprogramming Kit, a non-integrating system that uses Sendai virus vectors. This kit includes three vector preparations: polycistronic Klf4-Oct3/4-Sox2, cMyc, and Klf4.</i> |
| <b>Condiciones de cultivo de la línea de iPSc generada. (si se describen en publicación, indicar referencia)</b><br><i>iPSc Culture conditions (if they are described in a publication, please indicate the reference)</i>                                                                        | Support: human foreskin fibroblasts (ATCC, American Type Culture Collection, CCD112Sk).<br>Culture medium: Knockout Dulbecco's modified Eagle's medium supplemented with 2 mmol/l GlutaMAX (Gibco, InVitrogen corporation), 0,05mmol/l 2-mercaptoethanol (Gibco, InVitrogen corporation), 10 ng/ml basic fibroblast growth factor (bFGF) (Invitrogen), 1% non-essential amino acids (Cambrex), 20% Knockout Serum Replacement (InVitrogen) y 0,5% Penicillin-Streptomycin (Gibco, InVitrogen corporation).<br><br>Support: Matrigel (Corning BV)<br>Culture medium: mTeSR Basal Medium Kit (StemCell Technologies)                                                                                                                                                           |

|                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <p><b>Descripción de las características morfológicas de la línea en cultivo (forma y tamaño colonias; forma y tamaño células; ratio núcleo/citoplasma; otros)</b><br/> <i>Description of the morphological characteristics of the line in culture (form and size of the colonies; form and size of the cells; nucleus/cytoplasm ratio; others)</i></p> | <p>Colonias grandes poligonales, ligeramente aplanadas, de un tamaño entre 1- 3 mm de diámetro de diversas formas con bordes lisos. Células de tamaño uniforme y una elevada relación núcleo/citoplasma.</p> <p><i>Large and flat polygonal colonies, with uniformly sized cells of 1-3 mm of diameter. They have several forms and smooth edges. High nucleus/cytoplasm ratio.</i></p>                                                                                            |
| <p><b>Criopreservación de la línea celular (Describir método de congelación/descongelación)</b><br/> <i>Cryopreservation of the cell line (Describe freezing / thawing method)</i></p>                                                                                                                                                                  | <p>La congelación de los clumps de colonias se ha realizado en FBS(90%) + DMSO (10%), mediante congelador programable (-0.5°C/min.) o mediante contenedor de isopropanol a -80°C (-1°C/min.). Los viales se han descongelado a 37°C mediante descongelación rápida.</p> <p><i>The clumps of colonies were cryopreserved in FBS(90%)+ DMSO (10%), by programmable freezer (-0.5°C/min.) or by isopropanol container at -80°C (-1°C/min). Vials were thawed quickly at 37°C.</i></p> |
| <p><b>Pase de la línea celular en el momento del banqueo/registro. (Máximo: Pase 15)</b><br/> <i>Passage at the time of the banking/registration (Max: Passage 15)</i></p>                                                                                                                                                                              | <p>p12-15</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p><b>¿Ha sido la línea modificada genéticamente?</b><br/> <i>Has the line been genetically modified?</i><br/> <b>Sí Yes</b> <input type="checkbox"/> <b>No No</b> <input checked="" type="checkbox"/></p> <p><b>Comentarios/ Comments:</b></p>                                                                                                         | <p><b>¿Se llevó a cabo un análisis clonal?</b><br/> <i>Has a clonal analysis been carried out?</i><br/> <b>Sí/ Yes</b> <input type="checkbox"/> <b>No</b> <input checked="" type="checkbox"/> <b>Resultado / Result</b></p>                                                                                                                                                                                                                                                        |

**SECCIÓN 2 RESULTADOS DE LA CARACTERIZACIÓN DE LA LÍNEA iPS.**  
**Adjuntar resultados (imágenes o gráficos) como anexo**

*Section 2 iPS Cell Line characterization results. Attach results (images and graphics) as an annex*

| <p><b>Test de pluripotencia</b><br/><i>Pluripotency test</i></p> <p>Anexo 1<br/><i>Annex 1</i></p>                                                                                                                  | <table border="1"> <thead> <tr> <th></th> <th><b>Método</b><br/><i>Method</i></th> <th><b>Nº pase</b><br/><i>Passage n.</i></th> <th><b>Resultado</b><br/><i>Results</i></th> <th><b>Comentarios</b><br/><i>Comments</i></th> </tr> </thead> <tbody> <tr> <td><b>Oct 4</b></td> <td>inmunocitoq.</td> <td>14</td> <td>+</td> <td></td> </tr> <tr> <td><b>Nanog</b></td> <td>inmunocitoq.</td> <td>14</td> <td>+</td> <td></td> </tr> <tr> <td><b>Sox 2</b></td> <td>inmunocitoq.</td> <td>14</td> <td>+</td> <td></td> </tr> <tr> <td><b>SSEA3</b></td> <td>inmunocitoq.</td> <td>14</td> <td>+</td> <td></td> </tr> <tr> <td><b>SSEA4</b></td> <td>inmunocitoq.</td> <td>14</td> <td>+</td> <td></td> </tr> <tr> <td><b>TRA-1-60</b></td> <td>inmunocitoq.</td> <td>14</td> <td>+</td> <td></td> </tr> <tr> <td><b>TRA-1-81</b></td> <td>inmunocitoq.</td> <td>14</td> <td>+</td> <td></td> </tr> <tr> <td><b>Fosfatasa. Alk</b></td> <td>actividad</td> <td>15</td> <td>+</td> <td></td> </tr> </tbody> </table> |                                     | <b>Método</b><br><i>Method</i>     | <b>Nº pase</b><br><i>Passage n.</i>   | <b>Resultado</b><br><i>Results</i>    | <b>Comentarios</b><br><i>Comments</i> | <b>Oct 4</b>                          | inmunocitoq.                        | 14           | +          |    | <b>Nanog</b> | inmunocitoq. | 14                                  | +            |           | <b>Sox 2</b> | inmunocitoq. | 14 | +                                  |              | <b>SSEA3</b> | inmunocitoq. | 14  | + |  | <b>SSEA4</b> | inmunocitoq. | 14 | + |  | <b>TRA-1-60</b> | inmunocitoq. | 14 | + |  | <b>TRA-1-81</b> | inmunocitoq. | 14 | + |  | <b>Fosfatasa. Alk</b> | actividad | 15 | + |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-------------------------------------|--------------|------------|----|--------------|--------------|-------------------------------------|--------------|-----------|--------------|--------------|----|------------------------------------|--------------|--------------|--------------|-----|---|--|--------------|--------------|----|---|--|-----------------|--------------|----|---|--|-----------------|--------------|----|---|--|-----------------------|-----------|----|---|--|
|                                                                                                                                                                                                                     | <b>Método</b><br><i>Method</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Nº pase</b><br><i>Passage n.</i> | <b>Resultado</b><br><i>Results</i> | <b>Comentarios</b><br><i>Comments</i> |                                       |                                       |                                       |                                     |              |            |    |              |              |                                     |              |           |              |              |    |                                    |              |              |              |     |   |  |              |              |    |   |  |                 |              |    |   |  |                 |              |    |   |  |                       |           |    |   |  |
| <b>Oct 4</b>                                                                                                                                                                                                        | inmunocitoq.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 14                                  | +                                  |                                       |                                       |                                       |                                       |                                     |              |            |    |              |              |                                     |              |           |              |              |    |                                    |              |              |              |     |   |  |              |              |    |   |  |                 |              |    |   |  |                 |              |    |   |  |                       |           |    |   |  |
| <b>Nanog</b>                                                                                                                                                                                                        | inmunocitoq.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 14                                  | +                                  |                                       |                                       |                                       |                                       |                                     |              |            |    |              |              |                                     |              |           |              |              |    |                                    |              |              |              |     |   |  |              |              |    |   |  |                 |              |    |   |  |                 |              |    |   |  |                       |           |    |   |  |
| <b>Sox 2</b>                                                                                                                                                                                                        | inmunocitoq.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 14                                  | +                                  |                                       |                                       |                                       |                                       |                                     |              |            |    |              |              |                                     |              |           |              |              |    |                                    |              |              |              |     |   |  |              |              |    |   |  |                 |              |    |   |  |                 |              |    |   |  |                       |           |    |   |  |
| <b>SSEA3</b>                                                                                                                                                                                                        | inmunocitoq.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 14                                  | +                                  |                                       |                                       |                                       |                                       |                                     |              |            |    |              |              |                                     |              |           |              |              |    |                                    |              |              |              |     |   |  |              |              |    |   |  |                 |              |    |   |  |                 |              |    |   |  |                       |           |    |   |  |
| <b>SSEA4</b>                                                                                                                                                                                                        | inmunocitoq.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 14                                  | +                                  |                                       |                                       |                                       |                                       |                                     |              |            |    |              |              |                                     |              |           |              |              |    |                                    |              |              |              |     |   |  |              |              |    |   |  |                 |              |    |   |  |                 |              |    |   |  |                       |           |    |   |  |
| <b>TRA-1-60</b>                                                                                                                                                                                                     | inmunocitoq.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 14                                  | +                                  |                                       |                                       |                                       |                                       |                                     |              |            |    |              |              |                                     |              |           |              |              |    |                                    |              |              |              |     |   |  |              |              |    |   |  |                 |              |    |   |  |                 |              |    |   |  |                       |           |    |   |  |
| <b>TRA-1-81</b>                                                                                                                                                                                                     | inmunocitoq.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 14                                  | +                                  |                                       |                                       |                                       |                                       |                                     |              |            |    |              |              |                                     |              |           |              |              |    |                                    |              |              |              |     |   |  |              |              |    |   |  |                 |              |    |   |  |                 |              |    |   |  |                       |           |    |   |  |
| <b>Fosfatasa. Alk</b>                                                                                                                                                                                               | actividad                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 15                                  | +                                  |                                       |                                       |                                       |                                       |                                     |              |            |    |              |              |                                     |              |           |              |              |    |                                    |              |              |              |     |   |  |              |              |    |   |  |                 |              |    |   |  |                 |              |    |   |  |                       |           |    |   |  |
| <p><b>Test de diferenciación in vitro</b><br/><i>In vitro differentiation test</i></p>                                                                                                                              | <table border="1"> <thead> <tr> <th></th> <th><b>Método</b><br/><i>Method</i></th> <th><b>Marcador</b><br/><i>Marker</i></th> <th><b>Nº pase</b><br/><i>Passage n</i></th> <th><b>Resultado</b><br/><i>Results</i></th> <th><b>Comentarios</b><br/><i>Comments</i></th> </tr> </thead> <tbody> <tr> <td><b>Ectodermo</b><br/><i>Ectoderm</i></td> <td>inmunocitoq.</td> <td>Tuj1, GFAP</td> <td>14</td> <td>+/+</td> <td></td> </tr> <tr> <td><b>Mesodermo</b><br/><i>Mesoderm</i></td> <td>inmunocitoq.</td> <td>ASMA, ASA</td> <td>14</td> <td>+/+</td> <td></td> </tr> <tr> <td><b>Endoderm</b><br/><i>Endoderm</i></td> <td>inmunocitoq.</td> <td>AFP, FOXA2</td> <td>14</td> <td>+/+</td> <td></td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                   |                                     | <b>Método</b><br><i>Method</i>     | <b>Marcador</b><br><i>Marker</i>      | <b>Nº pase</b><br><i>Passage n</i>    | <b>Resultado</b><br><i>Results</i>    | <b>Comentarios</b><br><i>Comments</i> | <b>Ectodermo</b><br><i>Ectoderm</i> | inmunocitoq. | Tuj1, GFAP | 14 | +/+          |              | <b>Mesodermo</b><br><i>Mesoderm</i> | inmunocitoq. | ASMA, ASA | 14           | +/+          |    | <b>Endoderm</b><br><i>Endoderm</i> | inmunocitoq. | AFP, FOXA2   | 14           | +/+ |   |  |              |              |    |   |  |                 |              |    |   |  |                 |              |    |   |  |                       |           |    |   |  |
|                                                                                                                                                                                                                     | <b>Método</b><br><i>Method</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Marcador</b><br><i>Marker</i>    | <b>Nº pase</b><br><i>Passage n</i> | <b>Resultado</b><br><i>Results</i>    | <b>Comentarios</b><br><i>Comments</i> |                                       |                                       |                                     |              |            |    |              |              |                                     |              |           |              |              |    |                                    |              |              |              |     |   |  |              |              |    |   |  |                 |              |    |   |  |                 |              |    |   |  |                       |           |    |   |  |
| <b>Ectodermo</b><br><i>Ectoderm</i>                                                                                                                                                                                 | inmunocitoq.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tuj1, GFAP                          | 14                                 | +/+                                   |                                       |                                       |                                       |                                     |              |            |    |              |              |                                     |              |           |              |              |    |                                    |              |              |              |     |   |  |              |              |    |   |  |                 |              |    |   |  |                 |              |    |   |  |                       |           |    |   |  |
| <b>Mesodermo</b><br><i>Mesoderm</i>                                                                                                                                                                                 | inmunocitoq.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ASMA, ASA                           | 14                                 | +/+                                   |                                       |                                       |                                       |                                     |              |            |    |              |              |                                     |              |           |              |              |    |                                    |              |              |              |     |   |  |              |              |    |   |  |                 |              |    |   |  |                 |              |    |   |  |                       |           |    |   |  |
| <b>Endoderm</b><br><i>Endoderm</i>                                                                                                                                                                                  | inmunocitoq.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | AFP, FOXA2                          | 14                                 | +/+                                   |                                       |                                       |                                       |                                     |              |            |    |              |              |                                     |              |           |              |              |    |                                    |              |              |              |     |   |  |              |              |    |   |  |                 |              |    |   |  |                 |              |    |   |  |                       |           |    |   |  |
| <p><b>Descripción de las características de diferenciación <i>in vitro</i></b><br/><i>(espontánea/inducida)</i></p> <p><i>Description of the differentiation characteristics in vitro (spontaneous/induced)</i></p> | <p>Mesodermo: cultivo de cuerpos embrioides (EBs) en medio de cultivo suplementado con ácido ascórbico. Endodermo: cultivo de cuerpos embrioides. Ectodermo: cultivo de cuerpos embrioides en medio N2/B27 (ver Anexo 2).</p> <p><i>Mesoderm: Embryoid bodies (EBs) cultured in culture medium supplemented with ascorbic acid. Endoderm: EBs culture. Ectoderm: EBs culture in N2/B27medium (see Annex 2).</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                     |                                    |                                       |                                       |                                       |                                       |                                     |              |            |    |              |              |                                     |              |           |              |              |    |                                    |              |              |              |     |   |  |              |              |    |   |  |                 |              |    |   |  |                 |              |    |   |  |                       |           |    |   |  |

| <p><b>Test de diferenciación in vivo</b><br/><i>In vivo differentiation test</i></p>                                                                                                                            | <table border="1"> <thead> <tr> <th></th> <th><b>Método</b><br/><i>Method</i></th> <th><b>Marcador</b><br/><i>Marker</i></th> <th><b>Nº pase</b><br/><i>Passage n</i></th> <th><b>Resultado</b><br/><i>Results</i></th> <th><b>Comentarios</b><br/><i>Comments</i></th> </tr> </thead> <tbody> <tr> <td><b>Ectodermo</b><br/><i>Ectoderm</i></td> <td>inmunohist.</td> <td>NeFi, GFAP</td> <td>19</td> <td>+/+</td> <td></td> </tr> <tr> <td><b>Mesodermo</b><br/><i>Mesoderm</i></td> <td>inmunohist.</td> <td>ASMA, ASA</td> <td>19</td> <td>+/+</td> <td></td> </tr> <tr> <td><b>Endodermo</b><br/><i>Endoderm</i></td> <td>inmunohist.</td> <td>AFP, FOXA2</td> <td>19</td> <td>+/+</td> <td></td> </tr> </tbody> </table> |                                  | <b>Método</b><br><i>Method</i>     | <b>Marcador</b><br><i>Marker</i>   | <b>Nº pase</b><br><i>Passage n</i>    | <b>Resultado</b><br><i>Results</i> | <b>Comentarios</b><br><i>Comments</i> | <b>Ectodermo</b><br><i>Ectoderm</i> | inmunohist. | NeFi, GFAP | 19 | +/+ |  | <b>Mesodermo</b><br><i>Mesoderm</i> | inmunohist. | ASMA, ASA | 19 | +/+ |  | <b>Endodermo</b><br><i>Endoderm</i> | inmunohist. | AFP, FOXA2 | 19 | +/+ |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------|------------------------------------|---------------------------------------|------------------------------------|---------------------------------------|-------------------------------------|-------------|------------|----|-----|--|-------------------------------------|-------------|-----------|----|-----|--|-------------------------------------|-------------|------------|----|-----|--|
|                                                                                                                                                                                                                 | <b>Método</b><br><i>Method</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Marcador</b><br><i>Marker</i> | <b>Nº pase</b><br><i>Passage n</i> | <b>Resultado</b><br><i>Results</i> | <b>Comentarios</b><br><i>Comments</i> |                                    |                                       |                                     |             |            |    |     |  |                                     |             |           |    |     |  |                                     |             |            |    |     |  |
| <b>Ectodermo</b><br><i>Ectoderm</i>                                                                                                                                                                             | inmunohist.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | NeFi, GFAP                       | 19                                 | +/+                                |                                       |                                    |                                       |                                     |             |            |    |     |  |                                     |             |           |    |     |  |                                     |             |            |    |     |  |
| <b>Mesodermo</b><br><i>Mesoderm</i>                                                                                                                                                                             | inmunohist.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ASMA, ASA                        | 19                                 | +/+                                |                                       |                                    |                                       |                                     |             |            |    |     |  |                                     |             |           |    |     |  |                                     |             |            |    |     |  |
| <b>Endodermo</b><br><i>Endoderm</i>                                                                                                                                                                             | inmunohist.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | AFP, FOXA2                       | 19                                 | +/+                                |                                       |                                    |                                       |                                     |             |            |    |     |  |                                     |             |           |    |     |  |                                     |             |            |    |     |  |
| <p><b>Descripción de las características de diferenciación <i>in vivo</i></b><br/><i>Description of the differentiation characteristics in vivo</i></p>                                                         | <p>Inyección intratesticular en ratones SCID de 4•10 mill de células indiferenciadas y tras 8 semanas, análisis de los teratomas producidos mediante técnicas de inmunohistoquímica para ectodermo, mesodermo y endodermo (Anexo 3).</p> <p><i>4·10 mill of undifferentiated cells were injected into the testis of SCID mice. After 8 weeks, teratomas were analyzed by immunohistochemistry for ectoderm, endoderm and mesoderm (Annex 3).</i></p>                                                                                                                                                                                                                                                                           |                                  |                                    |                                    |                                       |                                    |                                       |                                     |             |            |    |     |  |                                     |             |           |    |     |  |                                     |             |            |    |     |  |
| <p><b>Cariotipo (especificar fórmula cariotípica y pase)</b><br/><i>Karyotype (Specify karyotype formula and passage)</i></p>                                                                                   | <p>46, XY; p12, p16</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                  |                                    |                                    |                                       |                                    |                                       |                                     |             |            |    |     |  |                                     |             |           |    |     |  |                                     |             |            |    |     |  |
| <p><b>Identificación celular: Huella genética por análisis de microsatélites/STR de la línea celular</b><br/><i>Cell Identity: Genetic fingerprinting by microsatellite analysis / STR of the cell line</i></p> | <p>Los marcadores de microsatélites de la muestra inicial coinciden con los de la línea de iPS generada (Anexo 5)</p> <p><i>Microsatellite markers of the initial sample are identical to the markers of the iPS line (Annex 5)</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                  |                                    |                                    |                                       |                                    |                                       |                                     |             |            |    |     |  |                                     |             |           |    |     |  |                                     |             |            |    |     |  |
| <p><b>Test de integración (detallar método utilizado según tipo de reprogramación celular)</b><br/><i>Integration Test (specify method depending on cell reprogramming)</i></p>                                 | <p>No procede, debido a que se trata un método no-integrativo</p> <p><i>Not applicable, due to non-integrating reprogramming methodology.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                  |                                    |                                    |                                       |                                    |                                       |                                     |             |            |    |     |  |                                     |             |           |    |     |  |                                     |             |            |    |     |  |

|                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Test de silenciamiento (detallar método utilizado según tipo de reprogramación celular)</b><br/> <i>Silencing Test (specify method used depending on cell reprogramming)</i></p>                                               | <p>El análisis mediante RT-PCR mostró la ausencia de mRNA derivado de virus Sendai en la línea de iPSC y la presencia de mRNA derivado de virus Sendai en células control tras 1 semana de transducción (Anexo 6).</p> <p><i>The RT-PCR showed absence of Sendai virus derived mRNAs in iPSCs and presence of Sendai virus derived mRNAs in virus transduced control cells 1 week after transduction (Annex 6).</i></p> |
| <p><b>Confirmación del diagnóstico genotípico en las iPSC generadas a partir de muestras con mutación genética</b><br/> <i>Confirmation of genotypic diagnosis of the cell line generated from samples with genetic mutation</i></p> | <p>No procede</p> <p><i>Not applicable</i></p>                                                                                                                                                                                                                                                                                                                                                                          |
| <p><b>Test de micoplasma</b><br/> <b><i>Mycoplasma Test</i></b></p>                                                                                                                                                                  | <p>Negativo por PCR (Anexo 8)</p> <p><i>Negative by PCR (Annex 8)</i></p>                                                                                                                                                                                                                                                                                                                                               |

### SECCIÓN 3 DATOS DEL DEPOSITANTE

*Section 3 Applicant Details*

|                                                                                                |                                                                          |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <p><b>Investigador Principal:</b><br/> <i>Principal Investigator:</i><br/> Pilar Sepúlveda</p> | <p><b>Dirección Postal:</b><br/> <i>Postal address:</i></p>              |
| <p><b>Centro de Trabajo:</b><br/> <i>Institution:</i></p>                                      | <p><b>Teléfono (phone):</b></p> <p><b>Fax:</b></p> <p><b>E-mail:</b></p> |

|                                                                                                                    |                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Investigador Principal:</b><br/> <i>Principal Investigator:</i><br/> Anna Veiga Lluch</p>                    | <p><b>Dirección Postal:</b><br/> <i>Postal address:</i><br/> Hospital Duran i Reynals. Gran Via de l'Hospitalet 199. 08908. Hospitalet de Llobregat. Barcelona</p> |
| <p><b>Centro de Trabajo:</b><br/> <i>Institution:</i><br/> Centro de Medicina Regenerativa de Barcelona (CMRB)</p> | <p><b>Teléfono (phone):</b> 93 3160360</p> <p><b>Fax:</b></p> <p><b>E-mail:</b> blc@cmrb.eu</p>                                                                    |

## **SECCIÓN 4      INFORMACIÓN ADICIONAL (OPCIONAL)**

*Section 4      Additional information (optional)*

**Otras observaciones o información relevantes** (a juicio del Investigador Principal):  
Other observations or relevant information (to the discretion of the Principal Investigator):

**Otras observaciones o información relevantes** (a rellenar por el BNLC):  
Other comments or relevant information (to be completed by BNLC)


**Seguimiento de la línea** (a rellenar por el BNLC):  
Follow up of the line (to be completed by BNLC)



## SECCIÓN 5 DECLARACIÓN

Confirmo que la información contenida en estos impresos es cierta y asumo total responsabilidad sobre la misma.

*I confirm that the information contained in this form is true and I assume total responsibility for it.*

|                                                                                                                                                                                                                      |                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Firma en Representación del Centro / Signature in Representation of the Centre</b><br/>(Representante legal del Departamento/Centro)<br/>Legal Representative of the Department/Centre</p> <p>Fecha/ Date:</p> | <p><b>Firma del Investigador Principal</b><br/>Signature of the Principal Investigator</p> <p><i>Pilar Sepúlveda</i><br/>28.01.2019</p> <p>Fecha /Date</p>                                          |
| <p><b>Nombre y Cargo de la Persona Representante del Centro:</b><br/>Name and Position of the Person Representing the Centre:<br/>Javier Burgos Muñoz. Director gerente.</p>                                         |                                                                                                                                                                                                     |
| <p><b>Dirección Postal:</b><br/>Postal Address:</p> <p>Avenida Fernando Abril Martorell, 106, Torre A, 7ª planta, 46026, Valencia. España</p>                                                                        | <p><b>Teléfono /Telephone:</b> 96 124 66 02</p> <p><b>Fax:</b></p> <p><b>E-mail:</b> javier.burgos@islafe.es</p>  |

|                                                                                                                                                                                                                                                        |                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Firma en Representación del Centro / Signature in Representation of the Centre</b><br/>(Representante legal del Departamento/Centro)<br/>Legal Representative of the Department/Centre</p> <p><i>[Signature]</i><br/>Fecha/ Date: 20/02/2019</p> | <p><b>Firma del Investigador Principal</b><br/>Signature of the Principal Investigator</p> <p><i>[Signature]</i><br/>Fecha /Date 19.II.19</p> |
| <p><b>Nombre y Cargo de la Persona Representante del Centro:</b><br/>Name and Position of the Person Representing the Centre:<br/>Angel Raya. Director</p>                                                                                             |                                                                                                                                               |
| <p><b>Dirección Postal:</b><br/>Postal Address:</p> <p>Hospital Duran i Reynals. Gran Via de l' Hospitalet 199. 08908. Hospitalet de Llobregat. Barcelona</p>                                                                                          | <p><b>Teléfono /Telephone:</b> 93 3160320</p> <p><b>Fax:</b></p> <p><b>E-mail:</b> gerencia@cmrb.eu</p>                                       |