



WiCell Feeder Independent
Pluripotent Stem Cell Protocols

Supplement: Culturing with
Imatinib

STANDARD OPERATING PROCEDURE



Feeder Independent Stem Cell Protocols Supplement: Culturing with Imatinib

SOP Number: SOP-SH-012

Version: A

1. PURPOSE

- 1.1. This Standard Operating Procedure (SOP) provides additional information for culturing with an Imatinib additive. If you have any additional questions, please contact us through technical support on the WiCell website at www.wicell.org.

2. REFERENCES

- 2.1. WiCell SOP-SH-002

3. REQUIRED MATERIALS

- 3.1. Imatinib (mesylate) (Cayman Chemical Company, 13139)
- 3.2. Dimethyl Sulfoxide (DMSO) (Sigma, D2438)

4. PROCEDURE

4.1. Prepare a 10mM stock solution of Imatinib (mesylate)

- 4.1.1. Dilute 25mg Imatinib (mesylate) in 4.24ml sterile DMSO.
- 4.1.2. Create aliquots in amounts that suite your needs, such as 250ul/tube for 250ml of supplemented culture medium (1ul of stock solution will be added to 1ml of mTeSR1 medium).
- 4.1.3. Store aliquots at -80°C.

4.2. Supplement Culture Medium

- 4.2.1. Add 1uL of 10mM Imatinib stock solution per 1mL mTeSR1 medium to achieve a final concentration of 10µM Imatinib.

4.3. Thaw and Culture

Note: Before thawing, check the certificate of analysis included in the shipping packet insert to determine the recommended number thaw ratio (number of wells into which a single vial of cells should be thawed).

- 4.3.1. Thaw according to WiCell Feeder Independent Pluripotent Stem Cell Protocol (SOP-SH-002) using mTeSR1 medium supplemented with 1uM Imatinib in place of mTeSR1 medium.
- 4.3.2. Observe the cells daily after thaw. Colonies will be difficult to see initially but will form small mounds over time. Continue to observe and feed with mTeSR1 supplemented with Imatinib until the cells need to be passaged.


4.4. Passage

- 4.4.1. Passage according to the WiCell Feeder Independent Pluripotent Stem Cell Protocol plating cells into mTeSR1 medium supplemented with 1uM Imatinib in place of mTeSR1 medium.

4.5. Cryopreservation

- 4.5.1. Cryopreserve cells by removing Imatinib containing medium from the wells, and follow the WiCell Feeder Independent Pluripotent Stem Cell Protocol.

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5. REVISION HISTORY

| Version | Change Description | Effective Date |
|---------|-------------------------------|----------------|
| A | CC00625, Document Initiation. | See SPDC |

6. APPROVALS

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|---|---|
| 11/11/2016 | 11/15/2016 |
| X JKG | X TEL |
| JKG Quality Assurance Manager Signed by: Gay, Jenna | TEL Director - WiCell Stem Cell Bank Signed by: Ludwig, Tenneille |