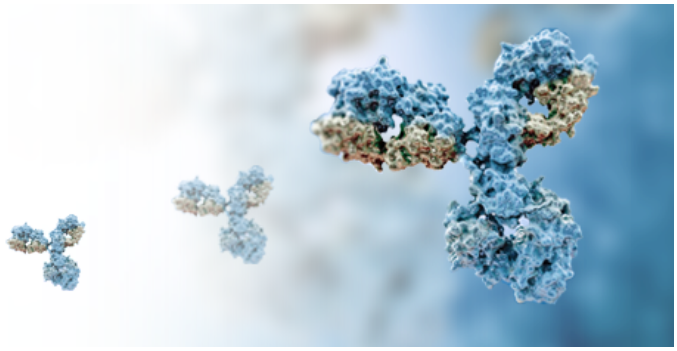

# HEK293T - IMPA1 (KO) Cell Line

**Cat. No.: NTV-1225-YJ100**
**This product is for research use only and is not intended for diagnostic use.**

## Summary

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| **Description** | An HEK293T cell line with the IMPA1 gene inactivated by CRISPR/Cas9. This line is a tool for rese arching the inositol signaling pathway and its potential therapeutic relevance to psychiatric conditio ns like bipolar disorder. |
| **Species** | Human |
| **Size** | $1\times10^6$ cells |
| **Growth Conditions** | 37°C with 5% $CO_2$ |
| **Related Disease** | Bipolar disorder |
| **Synonyms** | HEK293T IMPA1 Knockout cells; IMPA1-deficient HEK293T cells; HEK293T IMPA1-null cell line; H EK293T with IMPA1 gene knockout; IMPA1 KO 293 cells |
| **Parental cells** | HEK293T |
| **Format** | Frozen |
| **Shipping** | Dry Ice |
| **Storage** | Store in liquid nitrogen. |

## Specifications

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| **Mycoplasma Testing** | Negative |
| **Recovery of Frozen Cells** | Cell Reception:<br>* Upon receipt of cryopreserved cells, immediately transfer them to liquid nitrogen for storage, or b riefly store them in a -80°C freezer.<br>* Alternatively, you may proceed immediately to cell thawing.<br>* Notice: Please take photos of the package upon receipt (including dry ice and tubes). If any abno |

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| | rmalities are found (e.g., dry ice has run out, vial cap is dislodged, broken, or cell contamination), c ontact the supplier within 24 hours.<br><br>Cell Thawing:<br>1. Preparation: Warm the complete culture medium in a 37°C water bath for 30 minutes. Pipet 6-7 ml of the warmed medium into a 15 ml centrifuge tube.<br>2. Thaw: Retrieve the cryopreserved vial. Quickly thaw cells in the 37°C water bath by gently swirli ng the vial. (Note: Keep the cap out of the water.) Thawing should be complete in about 1 minute.<br>3. Centrifuge: In an ultra-clean bench, sterilize the vial's outer surface with an alcohol cotton pellet. Transfer the thawed cells to the prepared 15 ml centrifuge tube. Centrifuge at 1100 rpm for 4 minut es at room temperature.<br>4. Resuspend: Carefully remove and discard the supernatant. Resuspend the cell pellet with 1 ml of fresh complete medium.<br>5. Plate: Transfer the cell suspension into a T25 flask containing 4 ml of complete medium. Label t he flask (cell name, date, passage no.) and incubate in a 37°C, 5% $CO_2$ incubator.<br>6. Note: Do not expand cells directly into a T75 flask or 10 cm culture dish upon thawing. After tha wing, count the cell number and check cell viability. |
| **Subculturing Procedure** | * Confluency: Passage cells when they are 80%-90% confluent.<br>* Ratio: The recommended passage ratio is 1:2 to 1:4. For the first passage, use a 1:3 ratio.<br>* Steps:<br>1. Remove and discard the medium. Briefly rinse the cell layer 1-2 times with 1x PBS (2-3 ml for T 25, 4-5 ml for T75).<br>2. Add trypsin solution (1 mL for T25, 2-3 mL for T75) and incubate for 1-2 minutes.<br>3. When cells become round and detach, add complete medium (2 times the volume of trypsin) to stop digestion.<br>4. Gently pipet to detach all cells and transfer the cell suspension to a 50 ml centrifuge tube.<br>5. Centrifuge at 1100 rpm for 4 minutes at room temperature.<br>6. Remove and discard the supernatant. Resuspend the cells with 2 ml of complete medium.<br>7. Plate the cells at the appropriate ratio.<br>* Ratio Adjustment: Increase the ratio if cells reach confluence within two days; decrease the ratio i f they are not confluent after 3-4 days. |
| **Cryopreservation Medium** | Can be customized |
| **Research Use Only** | For Research Use Only. Not For Clinical Use. |