

Mitochondrial complex II mutated SDHD cell line

Catalogue number: 160706

Sub-type: Continuous

Images:

Contributor

Inventor: Abey Bandara

Institute: Virginia Tech

Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: Mitochondrial complex II mutated SDHD cell line

Alternate name: HEK293?SDHD

Class:

Conjugate:

Description: The HEK293?SDHD cell line expresses a CRISPR/Cas9 mutated nuclear encoded subunit, SDHD, of mitochondrial complex II (succinate dehydrogenase). This cell line has been shown to significantly alter the function of complex II (CII) of the mitochondrial electron transport chain and displays disruptions to SDHD that mimic clinical presentations of CII deficiency. These cells represent a powerful model of metabolic pathologies, not only for mitochondrial disease, but also for understanding the importance of CII in developing novel therapeutics. CRISPR edited HEK293 cells. Specific disruptions in SDHD have been reported to present clinically as the following disease conditions:-Complex II deficiency-Paraganglioma

Purpose:

Parental cell: HEK293

Organism: Human

Tissue:

Model: Knock-Out

Gender:

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties: The mutant has been shown to grow much slower than the parental cell line. The doubling time of the mutant is also significantly slower than that of the parental line.

Production details: The cell line is currently stored at Virginia Tech.

Formulation:

Recommended controls: HEK293 parental line

Bacterial resistance:**Selectable markers:**

Additional notes: CRISPR edited HEK293 cells. Cancer Research Technology Limited (trading research tools as Ximbio) has been granted a non-exclusive license to the CRISPR-Cas9 technology by ERS Genomics Ltd under the patent rights listed here This license from ERS Genomics Ltd allows Ximbio to develop and commercialise CRISPR-Cas9 modified cell lines for research use only. Ximbio can provi...

Target details

Target: SDHD

Target alternate names:

Target background:

Molecular weight:

Ic50:

Applications

Application:

Application notes: Cancer Research Technology Limited (trading research tools as CancerTools.org) has been granted a non-exclusive license to the CRISPR-Cas9 technology by ERS Genomics Ltd under the patent rights listed here: https://www.cancertools.org/tool-faqs#hs_cos_wrapper_widget_1649861453796 This license from ERS Genomics Ltd allows CancerTools.org to develop and commercialise CRISPR-Cas9 modified cell lines for research use only. CancerTools.org can provide these modified CRISPR-Cas9 cell lines to comp...

Handling

Format: Frozen

Concentration:

Passage number:

Growth medium: DMEM medium supplemented with 10% Fetal Bovine Serum and 1% Penicillin-Streptomycin at 37°C temperature and 5-6% CO₂.

Temperature:

Atmosphere:

Volume:

Storage medium:

Storage buffer:

Storage conditions:

Shipping conditions: Dry ice

Related tools

Related tools: HEK293?NDUFS2 Cell Line

References

References: McWilliam et al. 2020. Proc Natl Acad Sci U S A. 117(40):24974-24985. PMID: 32958637.

CancerTools.org