

Human Neuropilin-1 (NRP-1) Stable Cell Line

CATALOG NUMBER: CL-NRP1-001

Introduction

Neuropilin-1 (NRP-1) interacts with Vascular endothelial growth factor (VEGF)^{*1}. NRP-1 expression has been shown to be elevated in human patient tumor samples including brain, prostate, breast, colon, and lung cancers^{*2}. As a co-receptor for VEGF, NRP-1 is a potential target for cancer therapies. It has been shown that NRP-1 may facilitate entry the SARS-CoV-2 virus into cells by promoting the interaction of the virus with Angiotensin-converting Enzyme 2 (ACE2)^{*3}, so it is also a possible target for future antiviral drugs.

Reference

*1. Herzog et al., *Mol Biol Cell* 22(15), 2766-76 (2011)

*2. Zheng et al., *Tumor Biol* 35, 6089-6094 (2014)

*3. Cantuti-Castelvetri et al., *Science* 370, 856-860 (2020)

Description

This HEK293-ACE2-NRP1 stable cell line expresses a recombinant human NRP-1 (Neuropilin-1) in the HEK-ACE2 stable cells. The expression of NRP1 has been confirmed by RT-PCR.

Parental Cells

HEK293-ACE2 Cells

Gene/Enzyme Introduced

1) Human NRP-1 OMIM: 602069; MGI: 106206; HomoloGene: 2876; GeneCards: NRP1

Other name(s): NRP1, BDCA4, CD304, NP1, NRP, VEGF165R, Neuropilin 1

Applications

- cell based high-throughput screening of human NRP-1 antagonists
- SARS-CoV-2 entry study

Functional Tests

- survival rate: more than 2 million/vial on the second day after thawing

Mycoplasma Contamination Test

This lot of cells have been tested and found to be free of mycoplasma contamination.

Content

- Stable NRP-1 cells: 1 mL (2 x 10⁶ cells/mL in DMEM, 10% FBS, 10% DMSO)

Growth Properties

Adherent

Cell Culture Medium

- Growth medium: DMEM+10%FBS+1X P/S + 1ug/ml Puromycin and 5 ug/ml Blasticidin
- Freezing medium: 10% DMSO, 90% complete cell culture medium

Storage

Remove the frozen cells from the dry ice packaging and immediately place the cells at a temperature below -130°C, preferably in liquid nitrogen vapor, until ready for use.

Restriction

This cell line is not allowed to be transferred to other laboratory or other company. For purchasing this cell line, please contact eEnzyme LLC at info@eEnzyme.com, Telephone: +1 (240) 683 5851, FAX: +1 (240) 683 5852

