Active Neuropilin 1 (NRP1)

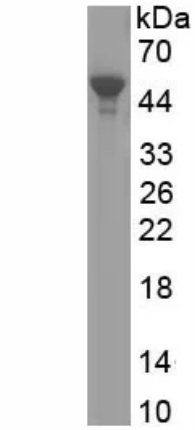
Catalog#:PEH12471

概述（Summary）

别称（Alternative Names）	CD304; BDCA4; VEGF165R; Vascular endothelial cell growth factor 165 receptor
纯度（Purity）	Greater than 90% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Cys27-Asp444】
Accession #	O14786
表达宿主（Host）	E.coli
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	50.7 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Cell-surface receptor involved in the development of the cardiovascular system, in angiogenesis, in the formation of certain neuronal circuits and in organogenesis outside the nervous system. Mediates the chemorepulsant activity of semaphorins. Recognizes a C-end rule (CendR) motif R/KXXR/K on its ligands which causes cellular internalization and vascular leakage. It binds to semaphorin 3A, the PLGF-2 isoform of PGF, the VEGF165 isoform of VEGFA and VEGFB. Coexpression with KDR results in increased VEGF165 binding to KDR as well as increased chemotaxis. Regulates VEGF-induced angiogenesis. Binding to VEGFA initiates a signaling pathway needed for motor neuron axon guidance and cell

body migration, including for the caudal migration of facial motor neurons from rhombomere 4 to rhombomere 6 during embryonic development. Regulates mitochondrial iron transport via interaction with ABCB8/MITOSUR.; Binds VEGF-165 and may inhibit its binding to cells. May induce apoptosis by sequestering VEGF-165. May bind as well various members of the semaphorin family. Its expression has an averse effect on blood vessel number and integrity.; (Microbial infection) Acts as a host factor for human coronavirus SARS-CoV-2 infection. Recognizes and binds to CendR motif RRAR on SARS-CoV-2 spike protein S1 which enhances SARS-CoV-2 infection.

电泳图（SDS-PAGE image）



Greater than 90% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

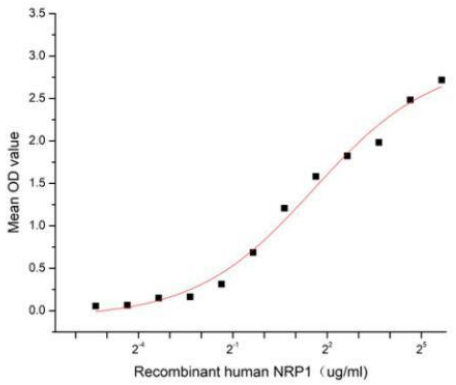


Figure 1. The binding activity of recombinant human NRP1 and recombinant human VEGF165

Neuropilin 1 (NRP1), as kown as CD304 or VEGF165R, is a 130 - 140 kDa type I transmembrane (TM) glycoprotein. NRP1 is expressed by neurons, blood vessels, immune cells and many other cell types in the mammalian body and binds a range of

structurally and functionally diverse extracellular ligands to modulate organ development and function. VEGF165, an angiogenic cytokine, has higher affinity for NRP1. A functional binding ELISA assay was conducted to detect the interaction of recombinant human NRP1 and recombinant human VEGF165. Briefly, NRP1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to VEGF165-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-NRP1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 µL stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant human NRP1 and recombinant human VEGF165 was shown in Figure 1, the EC50 for this effect is 2.98 ug/mL.

注意事项（Note）

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