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NRP1

Purified Mouse Monoclonal Antibody
Catalog # AO2573a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	O14786
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	5H11G6
Isotype	Mouse IgG1
Calculated MW	103134
Immunogen	Purified recombinant fragment of human NRP1 (AA: 22-644) expressed in HEK293 cells.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	8829
Other Names	NP1; NRP; BDCA4; CD304; VEGF165R
Dilution	WB~~ 1/500 - 1/2000 IHC~~1:100~500 ICC~~N/A E~~ 1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NRP1 is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NRP1 (HGNC:8004)
Synonyms	NRP, VEGF165R
Function	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 (PubMed:10688880, PubMed:9288753, PubMed:9529250). Recognizes a C-end rule (CendR) motif R/KXXR/K on its ligands which causes cellular internalization and vascular leakage (PubMed:19805273). It binds to semaphorin 3A, the PLGF-2 isoform of PGF,

	the VEGF165 isoform of VEGFA and VEGFB (PubMed:10688880, PubMed:19805273, PubMed:9288753, PubMed:9529250). 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 (By similarity). Regulates mitochondrial iron transport via interaction with ABCB8/MITOSUR (PubMed:30623799).
Cellular Location	[Isoform 2]: Secreted Secreted. Note=(Microbial infection) Proteolytically cleaved at the cell membrane upon H.pylori infection.
Tissue Location	[Isoform 1]: The expression of isoforms 1 and 2 does not seem to overlap. Expressed in olfactory epithelium (at protein level) (PubMed:33082293). Expressed in fibroblasts (at protein level) (PubMed:36213313). Expressed by the blood vessels of different tissues In the developing embryo it is found predominantly in the nervous system. In adult tissues, it is highly expressed in heart and placenta; moderately in lung, liver, skeletal muscle, kidney and pancreas; and low in adult brain (PubMed:10688880, PubMed:9529250). Expressed in the central nervous system, including olfactory related regions such as the olfactory tubercles and paraolfactory gyri (PubMed:33082293)

References

1.Expert Opin Ther Targets. 2015 Feb;19(2):147-61.2.Tumour Biol. 2014 Jul;35(7):6919-24.

Images

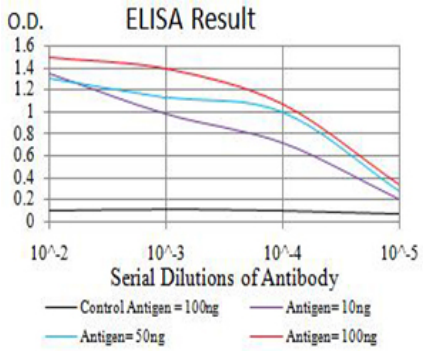


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

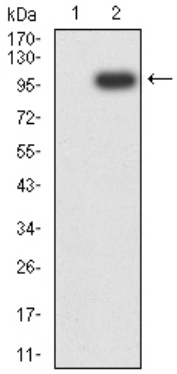


Figure 2:Western blot analysis using NRP1 mAb against HEK293 (1) and NRP1 (AA: 22-644)-hIgGFc transfected HEK293 (2) cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.