

# Mouse Neuropilin-1 ELISA Kit ab213880

[1 References](#) [1 Image](#)

### Overview

**Product name** Mouse Neuropilin-1 ELISA Kit

**Detection method** Colorimetric

### Precision

Intra-assay

Sample	n	Mean	SD	CV%
1	16	1.119ng/ml	0.085	= 7.6%
2	16	5.985ng/ml	0.442	= 7.4%
3	16	20.843ng/ml	1.354	= 6.5%

Inter-assay

Sample	n	Mean	SD	CV%
1	24	1.206ng/ml	0.096	= 8%
2	24	6.427ng/ml	0.533	= 8.3%
3	24	19.936ng/ml	1.375	= 6.9%

**Sample type**

Cell culture supernatant, Serum, Cell Lysate, Hep Plasma, EDTA Plasma

**Assay type**

Sandwich (quantitative)

**Sensitivity**

< 20 pg/ml

**Range**

780 pg/ml - 50000 pg/ml

**Assay time**

3h 30m

**Assay duration**

Multiple steps standard assay

**Species reactivity**

**Reacts with:** Mouse

**Product overview**

The Mouse Neuropilin-1 Enzyme-Linked Immunosorbent Assay (ELISA) kit (ab213880) is designed for the quantitative measurement of Mouse Neuropilin-1 in cell culture supernatants, cell lysates, serum and plasma (heparin, EDTA).

The ELISA kit is based on standard sandwich enzyme-linked immunosorbent assay technology. A

polyclonal antibody from goat specific for Neuropilin-1 has been precoated onto 96-well plates. Standards (Expression system for standard: NSO; Immunogen sequence: F22-P856) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Neuropilin-1 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the Mouse Neuropilin-1 amount of sample captured in plate.

**Notes** NRP1 (Neuropilin 1) also known as NP1, NRP, BDCA4 or VEGF165R, is a membrane-bound coreceptor to a tyrosine kinase receptor for both vascular endothelial growth factor (VEGF) and semaphorin family members. NRP1 plays versatile roles in angiogenesis, axon guidance, cell survival, migration, and invasion. By somatic cell hybrid analysis, the NRP1 gene was mapped to chromosome 10. NRP1 binds PGF1 with lower affinity. NRP1-mediated interactions are a necessary element in the initiation of the primary immune response and offer another example, like that of agrin, of a molecule shared by neurologic and immunologic synapses. After T-cell contact with DC, T-cell NRP1 colocalized with CD3 in the immunologic synapse and, sometimes, also at the opposite pole of the T cell. Soluble NRP1 interacts in a homophilic fashion with NRP1 on both DC and T cells, and this binding can be inhibited by blocking antibodies to NRP1. Furthermore, selective NRP1 inhibition in this model suppressed neovascular formation substantially.

**Platform** Pre-coated microplate (12 x 8 well strips)

**Properties**

**Storage instructions** Store at -20°C. Please refer to protocols.

Components	Identifier	1 x 96 tests
ABC Diluent Buffer	Blue Cap	1 x 12ml
Adhesive Plate Seal		4 units
Antibody Diluent Buffer	Green Cap	1 x 12ml
Anti-Mouse Neuropilin-1 coated Microplate (12 x 8 wells)		1 unit
Avidin-Biotin-Peroxidase Complex (ABC)		1 x 100µl
Biotinylated anti- Mouse Neuropilin-1 antibody		1 x 100µl
Lyophilized recombinant Mouse Neuropilin-1 standard		2 vials
Sample Diluent Buffer	Green Cap	1 x 30ml
TMB Color Developing Agent	Black Cap	1 x 10ml
TMB Stop Solution	Yellow Cap	1 x 10ml

**Function** The membrane-bound isoform 1 is a 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. It mediates the chemorepulsant activity of semaphorins. It binds to semaphorin 3A, The PLGF-2 isoform of PGF, The VEGF-165 isoform of VEGF and VEGF-B. Coexpression with KDR results in increased VEGF-165 binding to KDR as well as increased chemotaxis. It may regulate VEGF-induced angiogenesis.

The soluble isoform 2 binds VEGF-165 and appears to inhibit its binding to cells. It may also 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.

### Tissue specificity

The expression of isoforms 1 and 2 does not seem to overlap. Isoform 1 is 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. Isoform 2 is found in liver hepatocytes, kidney distal and proximal tubules.

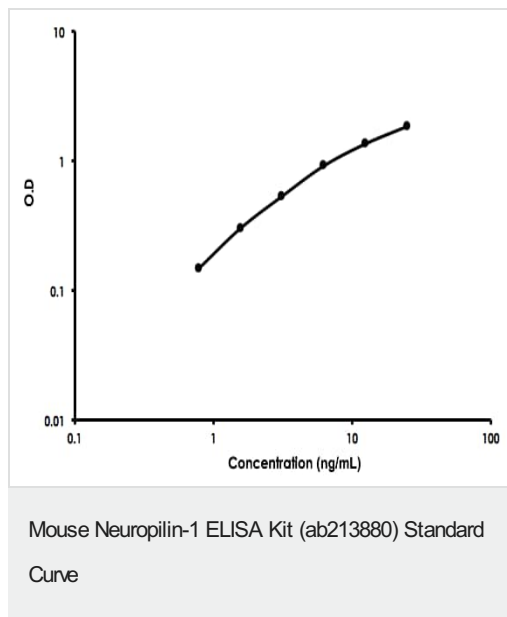
### Sequence similarities

Belongs to the neuropilin family.  
Contains 2 CUB domains.  
Contains 2 F5/8 type C domains.  
Contains 1 MAM domain.

### Cellular localization

Secreted and Cell membrane.

## Images



Mouse Neuropilin-1 ELISA Kit (ab213880) Standard Curve.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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