Netrin-1 (human), (recombinant)

The Netrins (whose name means “one who guides” in Sanskrit) are a family of laminin-related secreted protein. In mice, human and rat, netrin-1, netrin-3/NTL2, Netrin-4 and G-Netrins have been cloned. Netrin-1 is predominantly expressed by floor plate cells as commissural axons extend toward the ventral midline. Netrin-1 induces axonal outgrowth, axon orientation and neuronal migration in neuronal development. It is chemoattractive for some neurons and chemorepellent for others. To carry its functions, netrin-1 interacts with specific receptors: DCC/Neogenin and UNC-5. These receptors belong to the family of “dependence receptors” that induce apoptosis in the absence of their respective ligand, and promote survival when bound to their ligand. The Netrin-1 mediated survival signal inhibits p53-induced apoptosis. Netrin-1 is also expressed in organs such as pancreas, lung, bowel, bone and mammary gland. In these tissues, netrin-1 has different roles such as invasion of epithelial cells, leukocytes migration, cell adhesion or angiogenesis. Netrin-1, as a survival factor, also contributes to the control of tumorigenesis. Historical results have shown that netrin-1 induces axon outgrowth and inhibits DCC- and UNC5H2-mediated apoptosis in HEK 293 cells.

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Ordering Information

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ALX-522-100-C010	10µg
ALX-522-100-2010	2x10µg

Manuals, SDS & CofA

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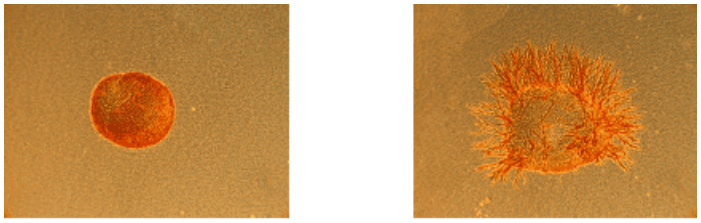
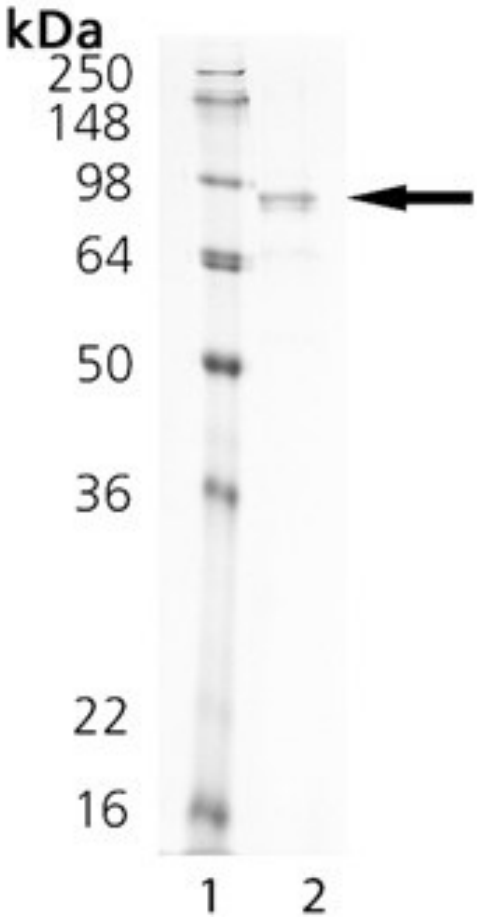
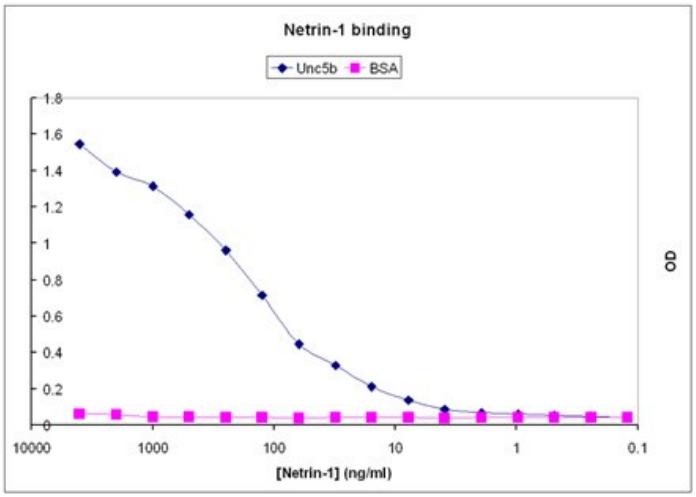


Figure: Netrin-1 (human) (rec.) (Prod. No. ALX-522-100) mediated commissural axon outgrowth. **Method:** Dorsal spinal cord were dissected out from E13 rat embryos and cultured in collagen matrix in the presence or absence of Netrin-1 (250 ng/ml). Axons were then stained with an anti-β-tubulin antibody. *Picture courtesy of Véronique Corset, Centre Léon Bérard, Lyon.*
“”,Netrin-1 (human)



SDS-PAGE analysis of Netrin-1 (human), (recombinant): Lane 1: MW Marker, Lane 2: 1µg Netrin-1.



ELISA analysis of Netrin-1 (human), (recombinant): Each well is coated with either 500ng Unc5b (Prod. No. ALX-522-095) or 2% BSA. Netrin-1 is titrated in 2-fold series and detected by anti-FLAG antibody.

Handling & Storage

Use/Stability	Stable for at least 6 months after receipt when stored at -20°C.
Handling	Avoid freeze/thaw cycles. After reconstitution, prepare aliquots and store at -20°C.
Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Application Notes	ELISA: binds to UNC5B at 15-1000 ng/ml.
Concentration	0.1mg/ml after reconstitution.
Formulation	Lyophilized. Contains PBS.
MW	~85kDa
Purity	≥90% (SDS-PAGE)
Purity Detail	Purified by multi-step chromatography.
Reconstitution	Reconstitute with 100µl sterile distilled water. Resuspended protein should be used immediately upon reconstitution to avoid loss in activity due to non-specific binding to the vial. Further dilutions should be made with medium containing 5% fetal calf serum or 0.5% BSA.
Source	Produced in HEK 293 cells. The extracellular domain of human netrin-1 (aa 28-604) is fused at the N-terminus to a FLAG®-tag.
Specificity	Tests positive for binding to human Unc5b by ELISA. Previous lots produced from the same cell line bind to human, mouse and rat receptors UNC5H and DCC.
Technical Info / Product Notes	FLAG is a registered trademark of Sigma-Aldrich Co.
UniProt ID	O95631

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