

DESCRIPTION

Species Reactivity	Chicken
Specificity	Detects chicken Netrin-1 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant chicken Netrin-2 and recombinant mouse Netrin-1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant chicken Netrin-1 (R&D Systems, Catalog # 128-N1) Gly26-Ala606 Accession # Q90922
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Chicken Netrin-1 (Catalog # 128-N1)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month from date of receipt, 2 to 8 °C, reconstituted. ● 6 months from date of receipt, -20 to -70 °C, reconstituted.

* This product or the use of this product is covered by U.S. Patents owned by The Regents of the University of California. This product is for research use only and is not to be used for commercial purposes. Use of this product to produce products for sale or for diagnostic, therapeutic or drug discovery purposes is prohibited. In order to obtain a license to use this product for such purposes, contact The Regents of the University of California.

U.S. Patent # 5,565,331, 6,096,866, 6,017,714, 6,309,638, 6,670,451, and other U.S. and international patents pending.

BACKGROUND

Chicken Netrin-1 is the prototypical member of an ever-expanding, laminin-related family of axon-guidance molecules collectively referred to as netrins (*netr* is Sanskrit for "one who guides"). The molecule's cDNA encodes a 606 amino acid (aa) protein precursor that has structural similarity to the N-terminus of the B2 or γ-chain of laminin. It contains one 250 aa type VI globular domain, three type V (~55 aa) cysteine/glycine rich EGF repeats, and one unique 140 aa "C" domain that binds heparin. Chick Netrin-1 shares 78% aa identity with chicken Netrin-2 and 86% aa identity with mouse and human Netrin-1. Although only two chick netrins are known, the number of known mammalian netrins is increasing. Human and mouse Netrin-3/NTN-2L, and a mouse Netrin-4, that shares homology with the B1 or β-chain of laminin, have been reported. Cells reported to express Netrin-1 in the embryo include cells of the spinal cord floor plate and somite, cells of the ganglionic eminence, and cells of the floor plate of the met- and caudal mesencephalon. In the adult, neurons of the thalamus, neocortex, and hippocampus, plus Schwann cells, osteoclasts and osteoblasts all reportedly produce Netrin-1. The DCC (deleted in colorectal cancer) gene product as well as the UNC5 family of receptors and the adenosine A2b receptor have been proposed to be functional receptors for Netrin-1.

References:

1. Serafini, T. *et al.* (1994) *Cell* **78**:409.
2. Kennedy, T.E. *et al.* (1994) *Cell* **78**:425.
3. Kappler, J. *et al.* (2000) *Biochem. Biophys. Res. Commun.* **271**:287.
4. MacLennan, A.J. *et al.* (1997) *J. Neurosci.* **17**:5466.
5. Koch, M. *et al.* (2000) *J. Cell. Biol.* **151**:221.
6. Corset, V. *et al.* (2000) *Nature* **407**:747.