

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human NGL-1/LRRC4C in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human NGL-1/LRRC4C Gln45-Lys527, predicted Accession # Q9HCJ2
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Human NGL-1 (Netrin-G1 ligand) is a 67 kDa (predicted for mature protein), type I transmembrane cell adhesion molecule that is a member of the NGL family of proteins (1, 2). It is synthesized from a precursor that is 640 amino acids (aa) in length that contains a 44 aa signal sequence, a 483 aa extracellular region, a 21 aa transmembrane region, and a short cytoplasmic tail of 92 aa. The extracellular region of NGL-1 consists of nine leucine-rich repeats (LRRs) that are flanked by LRR N-terminal and LRR C-terminal domains, and followed by an Ig-like C2-type domain (1, 2). The cytoplasmic region contains a C-terminal Glu-Thr-Gln-Ile sequence that corresponds to a potential PDZ (postsynaptic density-95/discs large/zona occludens-1) domain-binding motif (1, 2). Human NGL-1 is 99.7% aa identical to mouse NGL-1. Mouse NGL-1 is highly expressed in the developing cerebral cortex and the striatum at embryonic day 14 (1). Postnatally, NGL-1 is expressed exclusively in the brain, with the highest expression found in the cerebral cortex as a whole, and in individual neocortical areas such as the frontal, parietal and occipital lobes (1). Moderate expression of NGL-1 occurs in the putamen, amygdala, hippocampus and medulla oblongata (1). Weak expression is found in the caudate nucleus and thalamus (1). Functionally, membrane-bound cell-surface NGL-1 binds to netrin-G1 specifically through its LRR region, and in the developing brain, may promote neurite outgrowth of thalamocortical axons (1-4). Little is known about NGL-1's function at later stages.

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