

DESCRIPTION

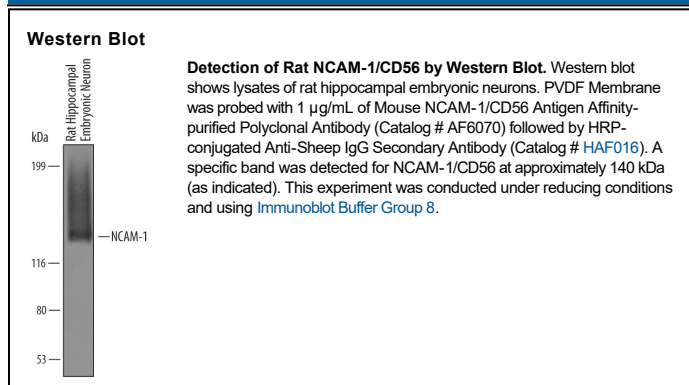
Species Reactivity	Mouse/Rat
Specificity	Detects mouse and rat NCAM-1/CD56 in direct ELISAs and Western blots. In direct ELISAs, approximately 20% cross-reactivity with recombinant human NCAM-1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse NCAM-1/CD56 Leu20-Thr711 (Phe403Val) Accession # P13595
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

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	1 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

NCAM-1 (Neural adhesion molecule-1; also CD56) is a 120 -190 kDa glycoprotein member of the Ig Superfamily. It is expressed on multiple cell types, both in the embryo and adult. Here, it serves as both an adhesion molecule and a receptor for multiple ligands, including as FGFR, PDGF, GDNF and agrin. On the cell surface, it is a cis-oriented homodimer that can form homodimers in-trans with other cis-homodimers. In the embryo, NCAM-1 is polysialylated (PolySia), and shows a MW of 200-220 kDa in SDS-Page. This polysialylation reduces the ability of NCAM-1 to dimerize. Mature mouse NCAM-1 is a 1096 amino acid (aa) type I transmembrane (TM) protein (aa 20-1115). It possesses a 692 aa extracellular region (aa 20-711) and a 386 aa cytoplasmic domain. The extracellular region contains five consecutive C2-type Ig-like domains (aa 20-492) followed by two FN type-III domains (aa 497-692). Multiple splice variants exist. There is a 140 kDa TM variant that shows a deletion of aa 810-1076, and a 120 kDa variant that is GPI-linked and shows a 24 aa substitution for aa 702-1115. A third potential variant contains a five aa substitution for aa 601-1115. Over aa 20-711, mouse NCAM-1 shares 99% and 95% aa identity with rat and human NCAM-1, respectively.