

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Nope/IGDCC4 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 15% cross-reactivity with recombinant mouse (rm) DCC, rmNeogenin, and rmPunc is observed.
Source	Monoclonal Rat IgG ₁ Clone # 261123
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Nope/IGDCC4 Gly22-His953 Accession # Q9EQS9
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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

Mouse Nope (Neighbor Of Punc E11) was discovered as a gene proximal to the Punc gene on chromosome 9 (1). Punc and Nope are distant members of a subgroup of the immunoglobulin (Ig) superfamily, which include DCC (Deleted in Colorectal Cancer) (2), *Caenorhabditis elegans* UNC5 (UNC = behaviorally uncoordinated) and its mammalian homologues (rat UNC5H1 and H2, mouse UNC5H2 and H3, and human UNC5H3 and H4) (3), Drosophila Frazzled (4), vertebrate Neogenin (5), and mouse Nope and Punc. Members of this subgroup of the Ig superfamily are type I transmembrane proteins with four Ig domains in their extracellular regions. Mouse Nope consists of a 21 amino acid (aa) signal peptide, a 933 aa extracellular domain (including four Ig domains, five fibronectin-type III (FnIII) repeats), a 24 aa transmembrane segment, and a 274 aa cytoplasmic domain (1). The extracellular domain of mNope shares 45% aa sequence similarity with mouse Punc. However, the cytoplasmic domains of mNope and mouse Punc do not share significant aa sequence similarity. Compared to other members of the subgroup of the Ig superfamily, mouse Nope extracellular domain shares approximately 25 aa similarity with mouse DCC and mouse Neogenin. Mouse and human Nope share 91% aa sequence similarity. Mouse Nope is expressed mostly in embryonic muscle tissues and in developing and adult nervous systems. The structural similarities between Nope and the guidance receptor of the DCC family suggest that Nope may have similar functions as the DCC family (6-8).

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