

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Nope/IGDCC4 in ELISAs and Western blots. In sandwich immunoassays, less than 0.3% cross-reactivity with recombinant mouse (rm) DCC, rmNeogenin, and rmPUNC is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
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.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
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 mouse 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 mouse Nope shares 45% aa sequence similarity with mouse Punc. However, the cytoplasmic domains of mouse Nope and mouse Punc do not share aa sequence similarity. Compared to other members of the subgroup of the Ig superfamily, mouse Nope extracellular domain shares 25.8% and 25.2% aa similarity with mouse DCC and mouse Neogenin, respectively. Mouse and human Nope share 90.8% 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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