

#### DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse Nope in ELISAs and Western blots. In sandwich immunoassays, less than 0.3% cross-reactivity with recombinant mouse (rm) DCC, rmNeogenin, and rmPUNC is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse Nope Gly22-His953 Accession # Q9EQS9
<b>Formulation</b>	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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse Nope Fc Chimera (Catalog # <a href="#">1394-NP</a> )
<b>Mouse Nope Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	0.2-0.8 µg/mL	Mouse Nope Antibody (Catalog # <a href="#">AF1394</a> )
<b>ELISA Detection Standard</b>	0.1-0.4 µg/mL	Mouse Nope Biotinylated Antibody (Catalog # <a href="#">BAF1394</a> ) Recombinant Mouse Nope Fc Chimera (Catalog # <a href="#">1394-NP</a> )

#### PREPARATION AND STORAGE

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

#### 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).

#### References:

1. Salbaum, J.M. and C. Kappen (2000) *Genomics* **64**:15.
2. Fearon *et al.* (1990) *Science* **247**:49.
3. Keino-Masu *et al.* (1996) *Cell* **87**:175.
4. Hong, K. *et al.* (1999) *Cell* **97**:927.
5. Leonardo, E.D. *et al.* (1997) *Nature* **386**:833.
6. Kolodziej *et al.* (1996) *Cell* **87**:197.
7. Meyerhardt (1997) *Oncogene* **14**:1129.
8. Vielmetter *et al.* (1997) *Genomics* **41**:414.