

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Noggin in direct ELISAs and Western blots. In direct ELISAs, approximately 30% cross-reactivity with recombinant human Noggin is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Noggin Leu20-Cys232 Accession # P97466
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.

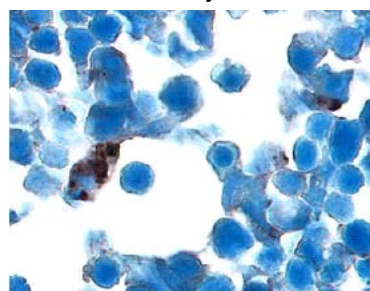
APPLICATIONS

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	0.1 µg/mL	Recombinant Mouse Noggin (Catalog # 1967-NG)
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

DATA

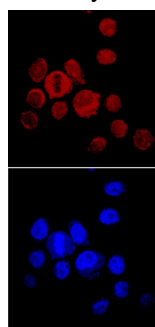
Immunohistochemistry



40x

Noggin in Embryonic Mouse Cardiac Tissue. Noggin was detected in immersion fixed frozen sections of embryonic mouse cardiac tissue (11 d.p.c.) using 15 µg/mL Goat Anti-Mouse Noggin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF719) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # [CTS008](#)) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

Immunocytochemistry



Noggin in PC-3 Human Cell Line. Noggin was detected in immersion fixed PC-3 human prostate cancer cell line using Goat Anti-Mouse Noggin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF719) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red, upper panel; Catalog # [NL001](#)) and counterstained with DAPI (blue, lower panel). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
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

Noggin was originally cloned based on its dorsaling activity in *Xenopus* embryos. Mammalian Noggins were subsequently identified and cloned from human, mouse and rat cDNA libraries. Mouse Noggin cDNA encodes a 232 amino acid (aa) residue precursor protein with 19 aa residue putative signal peptide that is cleaved to generate the 213 aa residue mature protein which is secreted as a homodimeric glycoprotein. Noggin is a highly conserved molecule. Mature mouse Noggin shares 99% and 83% aa sequence identity with human and *Xenopus* Noggin, respectively. Noggin has a complex pattern of expression during embryogenesis. In the adult, Noggin is expressed in the central nervous system and in several adult peripheral tissues such as lung, skeletal muscle and skin. Noggin has been shown to be a high-affinity BMP (bone morphogenetic protein) binding protein that antagonizes BMP bioactivities.

References:

1. Smith, W.C. and R.M. Harland (1992) Cell **70**:829.
2. Valenzuela, D.M. *et al.* (1995) J. Neurosci. **15**:6077.
3. Brunet, L.J. *et al.* (1998) Science **280**:1455.