

# NeutraKine® Noggin Monoclonal antibody

Catalog Number: 69010-1-Ig

## Basic Information

Catalog Number:

69010-1-Ig

Size:

Source:

Mouse

Isotype:

IgG1

Immunogen Catalog Number:

HZ-1118

GenBank Accession Number:

GeneID (NCBI):

9241

Full Name:

noggin

Purification Method:

Protein G purification

CloneNo.:

2A11C1

## Applications

Tested Applications:

ELISA, Neutralization

Species Specificity:

Human

## Background Information

Noggin is an extracellular polypeptide acting as an antagonist of bone morphogenetic proteins (BMPs) regulating embryonal development. Noggin inhibits activity of BMP-2, -4, -7, -13, and -14. Noggin is present extracellularly in the matrix or retained at the cell surface via interaction with heparin sulfate proteoglycans. In early development stages, Noggin is produced by the Spemann organizer, allowing dorsal-ventral patterning of BMPs (PMID: 8752214). Subsequently, Noggin is expressed by the notochord regulating BMP-4 signaling in neurogenesis. Additionally, Noggin is present during development in the dermal papilla, connective tissue of the hair follicle, lens, retina, and periocular mesenchyme, as well as in the mesoderm lineage regulating development of the bone, cartilage, and muscles.

This antibody can be used to neutralize the bioactivity of Noggin.

## Storage

Storage:

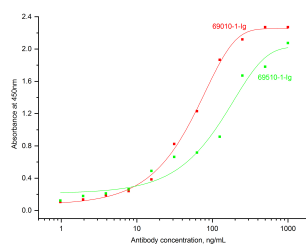
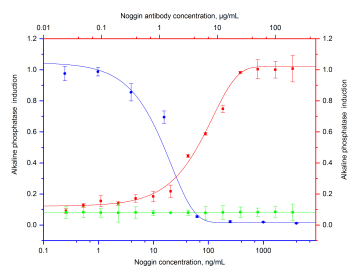
Lyophilized antibodies are stable for 1 year from the date of receipt if stored between (-20°C) and (-80°C). Upon reconstitution we recommend that the solution can be stored at 4°C for short term or at (-20°C) to (-80°C) for long term. Repeated freeze thaw cycles should be avoided with reconstituted products.

Storage Buffer:

Sterile PBS.

Aliquoting is unnecessary for -20°C storage

## Selected Validation Data



Recombinant human Noggin (Cat.NO. HZ-1118) inhibits BMP-4 induced alkaline phosphatase production (using pNPP as chromogenic substrate for detection) by ATDC 5 in a dose dependent manner (blue curve, refer to bottom X-left Y). The activity of human Noggin (40 ng/mL HZ-1118) is neutralized by mouse anti-human Noggin monoclonal antibody 69010-1-Ig at serial dose (red curve, refer to top X-right Y). The ND50 is typically 5-20  $\mu$ g/mL. The



Indirect ELISA was carried out by coating recombinant Human Noggin (Cat.NO. HZ-1118) at 70 ng/well followed by blocking and adding serial diluted Noggin antibody 69010-1-Ig and 69510-1-Ig respectively. Signal was developed with TMB and stopped by H2SO4. Signal strength was measured by absorbance at 450 nm.