



# Noggin

## Mouse monoclonal Antibody

### #53322

**Catalog Number:** 53322

**Amount:** 100µg/100µl

**Swiss-Prot No. :** Q13253

**Gene name:** nog

**Gene id:** 9241

**Clone Number:** 1D2-G8-G1

**Form of Antibody:** Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol

**Storage/Stability:** Store at -20°C/1 year

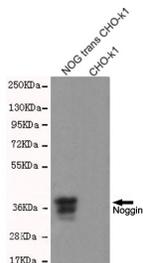
**Immunogen:** Purified recombinant human Noggin protein fragments expressed in E.coli

**Purification:** affinity-chromatography

**Specificity/Sensitivity:** This antibody detects endogenous levels of Noggin and does not cross-react with related proteins

**Reactivity:** Transfected

**Applications:** Predicted MW: 26kd WB: 1:1000 ICC:1:100



Western blot detection of Noggin in CHO-K1 cell lysates over-expressing Noggin-PDGFR transmembrane domain fused protein using Noggin mouse mAb (1:1000 diluted). Predicted band size: 26KDa. Observed band size: 37KDa.

**Background:** The secreted polypeptide, encoded by this gene, binds and inactivates members of the transforming growth factor-beta (TGF-beta) superfamily signaling proteins, such as bone morphogenetic protein-4 (BMP4). By diffusing through extracellular matrices more efficiently than members of the TGF-beta superfamily, this protein may have a principal role in creating morphogenic gradients. The protein appears to have pleiotropic effect, both early in development as well as in later stages. It was originally isolated from *Xenopus* based on its ability to restore normal dorsal-ventral body axis in embryos that had been artificially ventralized by UV treatment. The results of the mouse knockout of the ortholog suggest that it is involved in numerous developmental processes, such as neural tube fusion and joint formation. Recently, several dominant human NOG mutations in unrelated families with proximal symphalangism (SYM1) and multiple synostoses syndrome (SYNS1) were identified; both SYM1 and SYNS1 have multiple joint fusion as their principal feature, and map to the same region (17q22) as this gene. All of these mutations altered evolutionarily conserved amino acid residues. The amino acid sequence of this human gene is highly homologous to that of *Xenopus*, rat and mouse.