

## Product datasheet for **TA344207**

### Noggin (NOG) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB
Reactivity:	Human, Mouse
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	The immunogen for anti-NOG antibody: synthetic peptide directed towards the middle region of human NOG. Synthetic peptide located within the following region: GGHYDPGFMATSPPEDRPGGGGAAGGAEDLAELDQLLRQPSGAMPSEI
Formulation:	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose. <i>Note that this product is shipped as lyophilized powder to China customers.</i>
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	24 kDa
Gene Name:	noggin
Database Link:	<a href="#">NP_005441</a> <a href="#">Entrez Gene 18121 Mouse</a> <a href="#">Entrez Gene 9241 Human</a> <a href="#">Q13253</a>



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**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.

**Synonyms:**

SYM1; SYNS1; SYNS1A

**Note:**

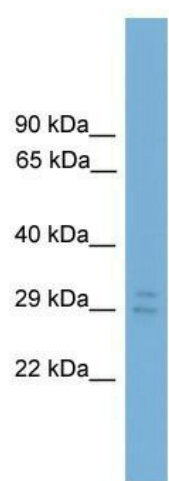
Immunogen Sequence Homology: Dog: 100%; Pig: 100%; Rat: 100%; Horse: 100%; Human: 100%; Mouse: 100%; Sheep: 100%; Bovine: 100%

**Protein Families:**

Druggable Genome, Secreted Protein

**Protein Pathways:**

TGF-beta signaling pathway

**Product images:**

WB Suggested Anti-NOG Antibody Titration: 0.2-1 ug/ml; ELISA Titer: 1:312500; Positive Control: ACHN cell lysate