

## Product datasheet for **SC208674**

### Noggin (NOG) (NM\_005450) Human 3' UTR Clone

#### Product data:

Product Type:	3' UTR Clones
Product Name:	Noggin (NOG) (NM_005450) Human 3' UTR Clone
Symbol:	Noggin
Synonyms:	SYM1; SYNS1; SYNS1A
Mammalian Cell Selection:	Neomycin
Vector:	pMirTarget (PS100062)
ACCN:	NM_005450
Insert Size:	719 bp
Insert Sequence:	>SC208674 3'UTR clone of NM_005450 The sequence shown below is from the reference sequence of NM_005450. The complete sequence of this clone may contain minor differences, such as SNPs. <b>Blue</b> =Stop Codon <b>Red</b> =Cloning site

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GGCAAGTTGGACGCCCGCAAGATCCGCGAGATTCTCATTAAAGCCAAGAAGGGCGGAAAGATCGCCGTG
TAACAATTGGCAGAGCTCAGAATTCAAGCGATCGCC
ATCATTCCGAGTGCAAGTGCTCGTGCTAGAACTCGGGGGCCCCCTGCCCGCACCCGGACACTTGATCG
ATCCCCACCGACGCCCTGCACCGCTCCAACCAGTTCCACCACCTCTAGCGAGGGTTTTCAATGAA
CTTTTTTTTTTTTTTTTTTTTTTTTTCTGGGCTACAGAGACCTAGCTTTCTGGTTCCTGTAATGCACT
GTTAACTGTGTAGGAATGTATATGTGTGTATATACGGTCCCAGTTTTAATTTACTTATTTAAAGGT
CAGTATTATACGTAAAAGTTACCGCTTCTACTGTATTTTTAAAAAAGTAAGCAAAAGAAAAA
AAGAACAGAGAAAAGAGAGACTTATTCTGGTTGTTGCTAATAATGTTAACCTGCTATTTATATTCCAGT
GCCCTTCGCATGGCGAAGCAGGGGGGAAAAGTTATTTTTTTCTTGAAGTACAAAGAGACGGGGAACTT
TTGTAGAGGACTTTTTAAAGCTATTTCCATTCTCGGAAAGTGTGGTTTTCTTGGACCTCGAA
GAAGCTATAGAGTTCAATGTTATTTTACAGTTATTGTAATATAGAGAACAAATGGAATGACTAATCAT
TGTAATAAAGAGTATCTGCTATTTATTCTTTATAATATCCCGTGTAGTAAATGAGAAAGAAGTGCGAGA
GCAGGATTAAGAAAACCACTAAAACCGA
ACGCGTAAGCGGCCGCGCATCTAGATTGGAAGAAATGACCGACCAAGCGACGCCCAACCTGCCATCA
CGAGATTTTCGATTCCACCGCCGCTTCTATGAAAGG

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Restriction Sites:	Sgfl-MluI
OTI Disclaimer:	Our molecular clone sequence data has been matched to the sequence identifier above as a point of reference. Note that the complete sequence of this clone is largely the same as the reference sequence but may contain minor differences , e.g., single nucleotide polymorphisms (SNPs).



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<b>Components:</b>	The cDNA clone is shipped in a 2-D bar-coded Matrix tube as 10 ug dried plasmid DNA. The package also includes 100 pmols of both the corresponding 5' and 3' vector primers in separate vials.
<b>RefSeq:</b>	<a href="#">NM_005450.6</a>
<b>Summary:</b>	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 <i>Xenopus</i> 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 <i>Xenopus</i> , rat and mouse. [provided by RefSeq, Jul 2008]
<b>Locus ID:</b>	9241
<b>MW:</b>	28.1