*h*Noggin VersaClone cDNA

Catalog Number: RDC3251

Specifications:

Gene:	*h*NOG
Accession:	NP_005441.1
Insert size:	712bp
Concentration:	10µg at 0.2µg/µL

Description

This shuttle vector contains the complete ORF for the gene of interest, along with a Kozak consensus sequence for optimal translation initiation. It is inserted NotI to AscI. The gene insert is flanked with convenient multiple cloning sites which can be used to easily cut and transfer the gene cassette into your desired expression vector.

Preparation and Storage

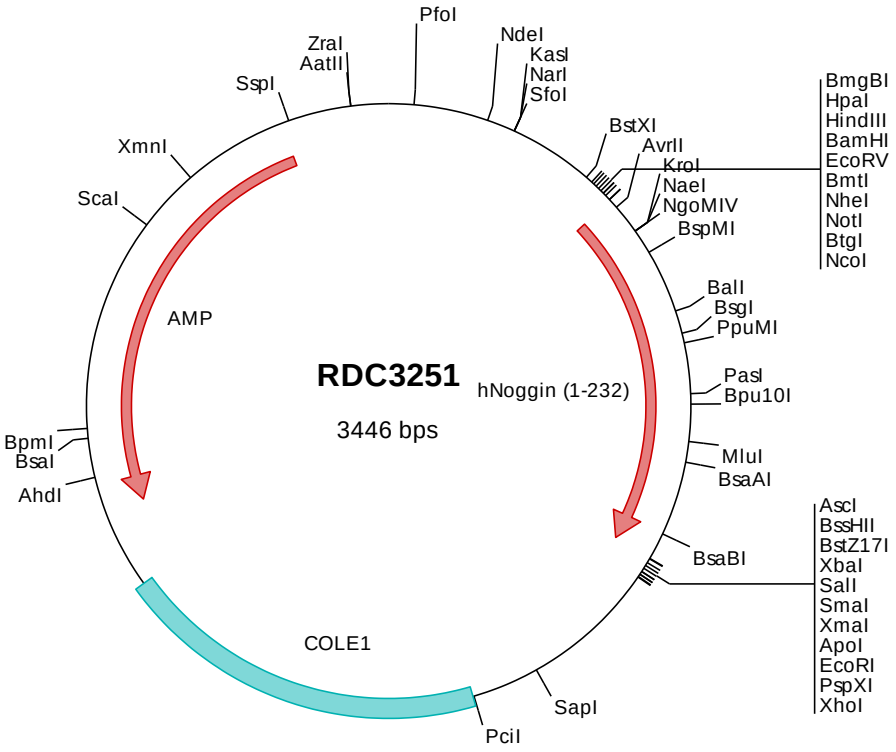
Formulation	cDNA is provided in 10 mM Tris-Cl, pH 8.5
Shipping	Ships at ambient temperature
Stability	1 year from date of receipt when stored at -20°C to -80°C
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

*h*Noggin cDNA Plasmid

NOG noggin [*Homo sapiens* (human)]

Also known as: SYM1; SYNS1; SYNS1A

Summary:
Noggin is a secreted polypeptide that 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, Noggin may have a principal role in creating morphogenic gradients. It appears to have pleiotropic effect, both early in development as well as in later stages.



FOR RESEARCH USE ONLY

NOT FOR USE IN HUMANS

R&D SYSTEMS
a bio-techne brand

> RDC3251 Plasmid DNA Sequence

```
   1  tcgcgcgttt cggtgatgac ggtgaaaacc tctgacacat gcagctcccg gagacggtca cagcttgtct gtaagcggat gccgggagca gacaagcccg
 101  tcagggcgcg tcagcgggtg ttggcgggtg tcggggctgg cttaactatg cggcatcaga gcagattgta ctgagagtgc accatatgcg gtgtgaaata
 201  ccgcacagat gcgtaaggag aaaataccgc atcaggcgcc attcgccatt caggctgcgc aactgttggg aagggcgatc ggtgcgggcc tcttcgctat
 301  tacgccagct ggcgaaaggg ggatgtgctg caaggcgatt aagttgggta acgccagggt tttcccagtc acgacgttgt aaaacgacgg ccagtgaatt
 401  ggagacgtgt taacaagctt ggatccgata tcgctagcgc ggccgccacc atggagcgct gccccagcct aggagtaacc ctctacgccc tggtggtggt
 501  cctggggctg cgggcgacac cggccggcgg ccagcactat ctccacatcc gcccggcacc cagcgacaac ctgcccctgg tggacctcat cgaacaccca
 601  gaccctatct ttgaccccaa ggaaaaggat ctgaacgaga cgctgctgcg ctcgctgctc gggggccact acgacccagg cttcatggcc acctcgcccc
 701  ccgaggaccg gcccggcggg ggcgggggtg cagctggggg cgcggaggac ctggcggagc tggaccagct gctgcggcag cggccgtcgg gggccatgcc
 801  gagcgagatc aaagggctag agttctccga gggcttggcc cagggcaaga agcagcgcct aagcaagaag ctgcggagga agttacagat gtggctgtgg
 901  tcgcagacat tctgccccgt gctgtacgcg tggaacgacc tgggcagccg cttttggccg cgctacgtga aggtgggcag ctgcttcagt aagcgctcgt
1001  gctccgtgcc cgagggcatg gtgtgcaagc cgtccaagtc cgtgcacctc acggtgctgc ggtggcgctg tcagcggcgc gggggccagc gctgcggctg
1101  gattcccatc cagtacccca tcatttccga gtgcaagtgc tcgtgttaaa ggcgcgccag tatactctag agtcgacacc cggggaattc ctcgagcgct
1201  cgtctctagc ttggcgtaat catggtcata gctgtttcct gtgtgaaatt gttatccgct cacaattcca cacaacatac gagccggaag cataaagtgt
1301  aaagcctggg gtgcctaatg agtgagctaa ctcacattaa ttgcgttgcg ctcactgccc gctttccagt cgggaaacct gtcgtgccag ctgcattaat
1401  gaatcggcca acgcgcgggg agaggcggtt tgcgtattgg gcgctcttcc gcttcctcgc tcactgactc gctgcgctcg gtcgttcggc tgcggcgagc
1501  ggtatcagct cactcaaagg cggtaatacg gttatccaca gaatcagggg ataacgcagg aaagaacatg tgagcaaaag gccagcaaaa ggccaggaac
1601  cgtaaaaagg ccgcgttgct ggcgtttttc cataggctcc gcccccctga cgagcatcac aaaaatcgac gctcaagtca gaggtggcga aacccgacag
1701  gactataaag ataccaggcg tttcccccctg gaagctccct cgtgcgctct cctgttccga ccctgccgct taccggatac ctgtccgcct ttctcccttc
1801  gggaagcgtg gcgctttctc aatgctcacg ctgtaggtat ctcagttcgg tgtaggtcgt tcgctccaag ctgggctgtg tgcacgaacc ccccgttcag
1901  cccgaccgct gcgccttatc cggtaactat cgtcttgagt ccaacccggt aagacacgac ttatcgccac tggcagcagc cactggtaac aggattagca
2001  gagcgaggta tgtaggcggt gctacagagt tcttgaagtg gtggcctaac tacggctaca ctagaaggac agtatttggt atctgcgctc tgctgaagcc
2101  agttaccttc ggaaaaagag ttggtagctc ttgatccggc aaacaaacca ccgctggtag cggtggtttt tttgtttgca agcagcagat tacgcgcaga
2201  aaaaaaggat ctcaagaaga tcctttgatc ttttctacgg ggtctgacgc tcagtggaac gaaaactcac gttaagggat tttggtcatg agattatcaa
2301  aaaggatctt cacctagatc cttttaaatt aaaaatgaag ttttaaatca atctaaagta tatatgagta aacttggtct gacagttacc aatgcttaat
2401  cagtgaggca cctatctcag cgatctgtct atttcgttca tccatagttg cctgactccc cgtcgtgtag ataactacga tacgggaggg cttaccatct
2501  ggccccagtg ctgcaatgat accgcgagac ccacgctcac cggctccaga tttatcagca ataaaccagc cagccggaag ggccgagcgc agaagtggtc
2601  ctgcaacttt atccgcctcc atccagtcta ttaattgttg ccgggaagct agagtaagta gttcgccagt taatagtttg cgcaacgttg ttgccattgc
2701  tacaggcatc gtggtgtcac gctcgtcgtt tggtatggct tcattcagct ccggttccca acgatcaagg cgagttacat gatcccccat gttgtgcaaa
2801  aaagcggtta gctccttcgg tcctccgatc gttgtcagaa gtaagttggc cgcagtgtta tcactcatgg ttatggcagc actgcataat tctcttactg
2901  tcatgccatc cgtaagatgc ttttctgtga ctggtgagta ctcaaccaag tcattctgag aatagtgtat gcggcgaccg agttgctctt gcccggcgtc
3001  aatacgggat aataccgcgc cacatagcag aactttaaaa gtgctcatca ttggaaaacg ttcttcgggg cgaaaactct caaggatctt accgctgttg
3101  agatccagtt cgatgtaacc cactcgtgca cccaactgat cttcagcatc ttttactttc accagcgttt ctgggtgagc aaaaacagga aggcaaaatg
3201  ccgcaaaaaa gggaataagg gcgacacgga aatgttgaat actcatactc ttccttttc aatattattg aagcatttat cagggttatt gtctcatgag
3301  cggatacata tttgaatgta tttagaaaaa taaacaaata ggggttccgc gcacatttcc ccgaaaagtg ccacctgacg tctaagaaac cattattatc
3401  atgacattaa cctataaaaa taggcgtatc acgaggccct ttcgtc
```

> RDC3251 Translated Insert Sequence

```
  1  mercpslgvt lyalvvvlgl ratpaggqhy lhirpapsdn lplvdliehp dpifdpkekd lnetllrsll gghydpgfma tsppedrpgg gggaaggaed
101  laeldqllrq rpsgampsei kglefsegla qgkkqrlskk lrrklqmwlw sqtfcpvlya wndlgsrfwp ryvkvgscfs krscsvpegm vckpsksvhl
201  tvlrwrcqrr ggqrcgwipi qypiiseckc sc
```