

Product datasheet for **RC210835**

Gremlin 1 (GREM1) (NM_013372) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Gremlin 1 (GREM1) (NM_013372) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: Gremlin 1
Synonyms: C15DUPq; CKTSF1B1; CRAC1; CRCS4; DAND2; DRM; DUP15q; GREMLIN; HMPS; HMPS1; IHG-2; MPSH; PIG2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC210835 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGAGCCGCACAGCCTACACGGTGGGAGCCCTGCTTCTCCTCTTGGGGACCCCTGCTGCCGGCTGCTGAAG
GGAAAAAGAAAGGGTCCCAAGGTGCCATCCCCCGCCAGACAAGGCCAGCAATGACTCAGAGCAGAC
TCAGTCGCCCCAGCAGCCTGGCTCCAGGAACCGGGGGCGGGCCAAGGGCGGGGCACTGCCATGCCCGGG
GAGGAGGTGCTGGAGTCCAGCCAAGAGGCCCTGCATGTGACGGAGCGCAAATACCTGAAGCGAGACTGGT
GCAAAACCCAGCCGCTTAAGCAGACCATCCACGAGGAAGGCTGCAACAGTCGCACCATCATCAACCGCTT
CTGTTACGGCCAGTGCAACTCTTTCTACATCCCCAGGCACATCCGGAAGGAGGAAGGTTCTTTTCAGTCC
TGCTCCTTCTGCAAGCCCAAGAAATTCCTACTACCATGATGGTCACACTCAACTGCCCTGAACTACAGCCAC
CTACCAAGAAGAAGAGAGTACACGCTGTGAAGCAGTGTGCTTGCATATCCATCGATTTGGAT

CTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACG
ATAAGGTTTAA

Protein Sequence: >RC210835 protein sequence
Red=Cloning site Green=Tags(s)

MSRTAYTVGALLLLLTLLPAAEGKKKGSQGAIPPPDKAQHNDSEQTQSPQQPGSRNRGRGQGRGTAMPG
EEVLESSQEALHVTERKYLKRDWCKTQPLKQTIHEEGCNSRTIINRFQYQCNSFYIPRHIRKEEGSFQS
CSFCKPKKFTTMMVTLNCPQLPPTKKKRVTRVKQCRCISIDL

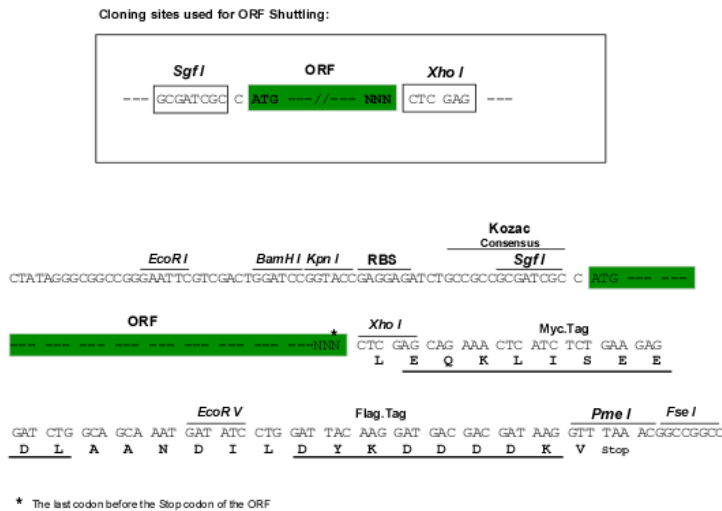
LEQKLISEEDLAANDILDYKDDDDKVV



Chromatograms: https://cdn.origene.com/chromatograms/mk6273_b07.zip

Restriction Sites: Sgfl-XhoI

Cloning Scheme:



ACCN: NM_013372

ORF Size: 552 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

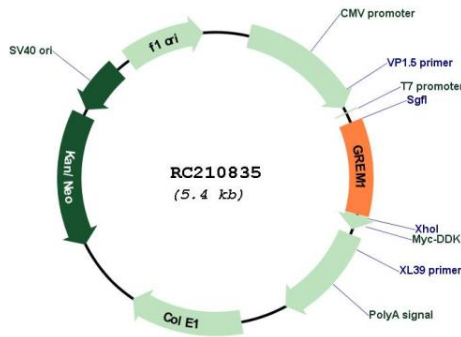
RefSeq: [NM_013372.7](#)

RefSeq Size: 4150 bp

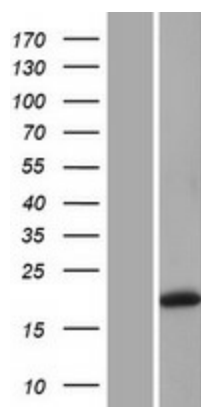
RefSeq ORF: 555 bp
Locus ID: 26585
UniProt ID: [O60565](#)
Cytogenetics: 15q13.3
Protein Families: ES Cell Differentiation/IPS, Secreted Protein
MW: 20.7 kDa

Gene Summary: This gene encodes a member of the BMP (bone morphogenic protein) antagonist family. Like BMPs, BMP antagonists contain cystine knots and typically form homo- and heterodimers. The CAN (cerberus and dan) subfamily of BMP antagonists, to which this gene belongs, is characterized by a C-terminal cystine knot with an eight-membered ring. The antagonistic effect of the secreted glycosylated protein encoded by this gene is likely due to its direct binding to BMP proteins. As an antagonist of BMP, this gene may play a role in regulating organogenesis, body patterning, and tissue differentiation. In mouse, this protein has been shown to relay the sonic hedgehog (SHH) signal from the polarizing region to the apical ectodermal ridge during limb bud outgrowth. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2010]

Product images:



Circular map for RC210835



Western blot validation of overexpression lysate (Cat# [LY415632]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210835 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).