

Product datasheet for **RC207388**

GREM2 (NM_022469) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: GREM2 (NM_022469) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: GREM2
Synonyms: CKTSF1B2; DAND3; PRDC; STHAG9
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC207388 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGTTCTGGAAGCTTTCCTGTCCTTGTTTCATGGTGGCGGTGCTGGTGAAGGTGGCGGAAGCCCGGAAGA
ACCGGCCGGCGGCCATCCACTCGCCTTACAAGGACGGCAGCAGCAACAACCTCGGAGAGATGGCAGCA
CCAGATCAAGGAGGTACTGGCTCCAGCCAGGAGGCCCTGGTGGTACCGAGCGCAAGTACCTCAAGAGT
GACTGGTGAAGACGCAGCCGCTGCGGCAGACGGTGAGCGAGGAGGGCTGCCGGAGCCGACCATCTCA
ACCGCTTCTGCTACGGCCAGTGAACCTCTTCTACATCCCGCGGCACGTGAAGAAGGAGGAGGAGTCTT
CCAGTCTGCGCCTTCTGCAAGCCCAGCGGTCACCTCCGTCCTCGTGGAGCTCGAGTGCCCCGGCCTG
GACCCACCTTCCGACTCAAGAAAATCCAGAAGGTGAAGCAGTGCCGGTGCATGTCCGTGAACCTGAGCG
ACTCGGACAAGCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC207388 protein sequence
Red=Cloning site Green=Tags(s)

MFWKLSLSLFMVAVLVKVAEARKNRPAGAIHSPYKDGSSNNSERWQHQIKEVLASSQEALVYTERKYLKS
DWCKTQPLRQTVSEEGCRSRTILNRFYGCNSFYIPRHVKKEEESFQSCAFCKPQRVTSVLVELECPGL
DPPFRLKKIQVKQCRMSVNLSDSDKQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6135_d03.zip

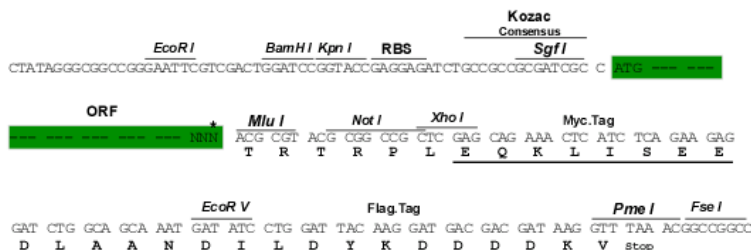
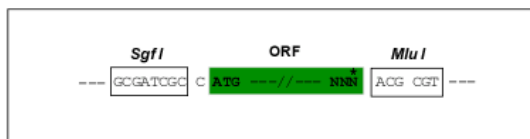


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Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_022469

ORF Size: 504 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.

RefSeq: [NM_022469.2](#)

RefSeq Size: 4199 bp

RefSeq ORF: 507 bp

Locus ID: 64388

UniProt ID: [Q9H772](#)

Cytogenetics: 1q43

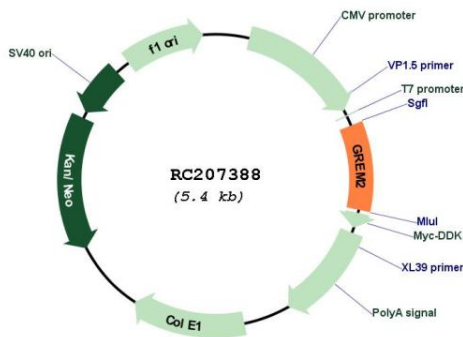
Domains: DAN, CT

Protein Families: Secreted Protein

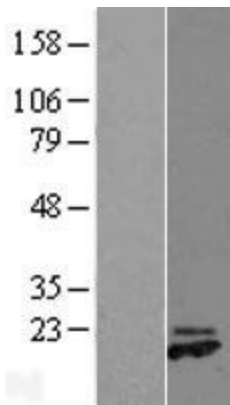
MW: 19.4 kDa

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. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC207388



Western blot validation of overexpression lysate (Cat# [LY402925]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207388 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).