

Product datasheet for **RG202806**

CTRB1 (NM_001906) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CTRB1 (NM_001906) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CTRB1
Synonyms:	CTRB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG202806 representing NM_001906 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTTTCCTCTGGCTCCTCTCCTGCTGGGCCCTCTGGGTACCACCTTCGGCTGCGGGGTCCCCGCCA
TCCACCCTGTGCTCAGCGGCCTGTCCAGGATCGTGAATGGGGAGGACGCCGTCCCCGGCTCCTGGCCCTG
GCAGGTGTCCCTGCAGGACAAAACGGCTTCCACTTTCGCGGGGCTCCCTCATCAGCGAGGACTGGGTG
GTCACCGCTGCCACTGCGGGGTCAGGACCTCCGACGTGGTCTGGCTGGGGAGTTTGACCAGGGCTCTG
ACGAGGAGAACATCCAGGTCCTGAAGATCGCCAAGGTCTTCAAGAACCCCAAGTTCAGCATTCTGACCGT
GAACAATGACATCACCTGCTGAAGCTGGCCACACCTGCCCGCTTCTCCCAGACAGTGTCCGCCGTGTG
CTGCCCAGCGCCGACGACGACTTCCCCGCGGGGACACTGTGTGCCACCACAGGCTGGGGCAAGACCAAGT
ACAACGCCAACAAGACCCCTGACAAGCTGCAGCAGGCAGCCCTGCCCTCCTGTCCAATGCCGAATGCAA
GAAGTCTGGGGCAGGAGGATCACCGACGTGATGATCTGTGCCGGGGCCAGTGGCGTCTCCTCCTGCATG
GGCGACTCTGGCGGTCCCTGGTCTGCCAAAAGGATGGAGCCTGGACCCTGGTGGGCATTGTGCTCTGGG
GCAGCGACACCTGCTCCACCTCCAGCCCTGGCGTGTACGCCCGTGTACCAAGCTCATACCTGGGTGCA
GAAGATCCTGGCTGCCAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG202806 representing NM_001906
 Red=Cloning site Green=Tags(s)

MAFLWLLSCWALLGTTFGCGVPAIHPVLSGLSRIVNGEDAVPGSWPWQVSLQDKTGFHFCCGGLISEDWV
 VTAAHCGVRTSDVVVAGEFDQGSDEENIQVLKIAKVFKNPKFSILTVNNDITLLKLATPARFSQTVSAVC
 LPSADDDFPAGTLCATTGWGKTKYNANKTPDKLQQAALPLLSNAECKKSWGRRITDVMICAGASGVSSCM
 GDSGGPLVCQKDGAWTLVGIVSWGSDTCSTSSPGVYARVTKLIPWVQKILAAN

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001906

ORF Size: 789 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_001906.3](#)

RefSeq Size: 873 bp

RefSeq ORF: 792 bp

Locus ID: 1504

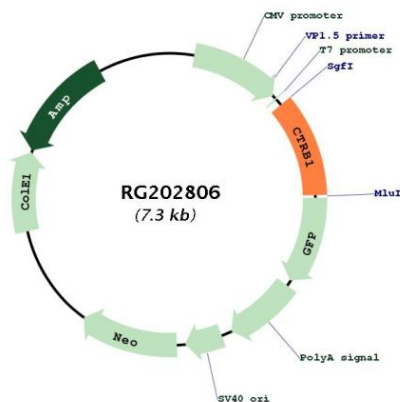
UniProt ID: [P17538](#)

Cytogenetics: 16q23.1

Protein Families: Druggable Genome, Protease, Secreted Protein, Transmembrane

Gene Summary: This gene encodes a member of the serine protease family of enzymes and forms a principal precursor of the pancreatic proteolytic enzymes. The encoded preproprotein is synthesized in the acinar cells of the pancreas and secreted into the small intestine where it undergoes proteolytic activation to generate a functional enzyme. This CTRB1 gene is located head-to-head with the related CTRB2 gene. Some human populations have an alternate haplotype which inverts a 16.6 Kb region containing portions of intron 1, exon 1, and the upstream sequence of the CTRB1 and CTRB2 genes. In this inversion haplotype exon 1 and flanking sequence is swapped in CTRB1 and CTRB2. This inversion is associated with differential gene expression and increased risk for chronic pancreatitis. The GRCh38 assembly represents the minor allele for SNP rs8048956 of the CTRB1 gene. SNP rs8048956 in intron 1 of the CTRB2 gene is diagnostic for this inversion. This CTRB1 gene encodes distinct isoforms, some or all of which may undergo similar processing to generate the mature protein. [provided by RefSeq, Jan 2021]

Product images:



Circular map for RG202806