

Product datasheet for **RC202806**

CTRB1 (NM_001906) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CTRB1 (NM_001906) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CTRB1
Synonyms:	CTRB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202806 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTTTCCTCTGGCTCCTCTCCTGCTGGGCCCTCCTGGGTACCACCTTCGGCTGCGGGGTCCCCGCCA
TCCACCCTGTGCTCAGCGGCCTGTCCAGGATCGTGAATGGGGAGGACGCCGTCCCCGGCTCCTGGCCCTG
GCAGGTGTCCCTGCAGGACAAAACCGGCTTCCACTTTCGCGGGGGCTCCCTCATCAGCGAGGACTGGGTG
GTCACCGCTGCCACTGCGGGGTGAGGACCTCCGACGTGGTCTGGCTGGGGAGTTTGACCAGGGCTCTG
ACGAGGAGAACATCCAGGTCCTGAAGATCGCCAAGGTCTTCAAGAACCCCAAGTTCAGCATTCTGACCGT
GAACAATGACATCACCTGCTGAAGCTGGCCACACCTGCCCGCTTCTCCCAGACAGTGTCCGCCGTGTG
CTGCCCAGCGCCGACGACGACTTCCCCGCGGGGACACTGTGTGCCACCACAGGCTGGGGCAAGACCAAGT
ACAACGCCAACAAGACCCTGACAAGCTGCAGCAGGCAGCCCTGCCCTCCTGTCCAATGCCGAATGCAA
GAAGTCTGGGGCAGGAGGATCACCGACGTGATGATCTGTGCCGGGGCCAGTGGCGTCTCCTCCTGCATG
GGCGACTCTGGCGGTCCCTGGTCTGCCAAAAGGATGGAGCCTGGACCCTGGTGGGCATTGTGCTCTGGG
GCAGCGACACCTGCTCCACCTCCAGCCCTGGCGTGTACGCCCGTGTACCAAGCTCATACCTGGGTGCA
GAAGATCCTGGCTGCCAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >RC202806 protein sequence
 Red=Cloning site Green=Tags(s)

MAFLWLLSCWALLGTTFGCGVPAIHPVLSGLSRIVNGEDAVPGSWPWQVSLQDKTGFHFHFCGGSLISEDWV
 VTAAHCGVRTSDVVVAGEFDQGSDEENIQVLKIAKVFKNPKFSILTVNNDITLLKLATPARFSQTVSAVC
 LPSADDDFPAGTLCATTGWGKTKYNANKTPDKLQQAALPLLSNAECKKSWGRRITDVMICAGASGVSSCM
 GDSGGPLVCQKDGAWTLVGIVSWGSDTCSTSSPGVYARVTKLIPWVQKILAAAN

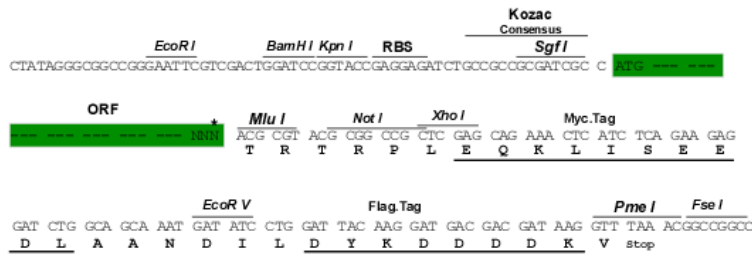
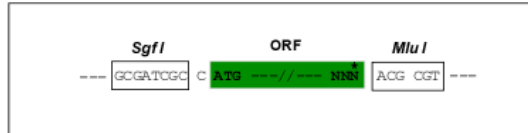
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6079_c06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001906

ORF Size: 789 bp

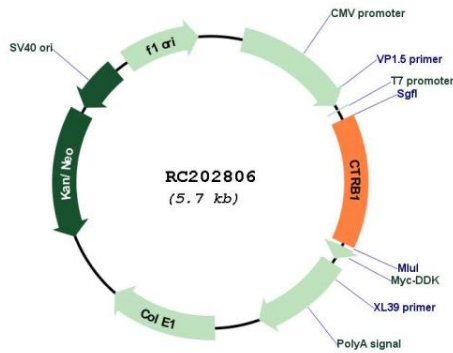
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

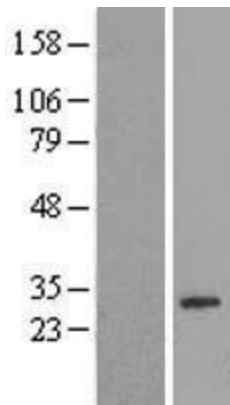
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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
MW:	27.9 kDa
Gene Summary:	<p>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]</p>

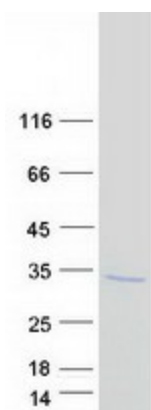
Product images:



Circular map for RC202806



Western blot validation of overexpression lysate (Cat# [LY419664]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202806 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CTRB1 protein (Cat# [TP302806]). The protein was produced from HEK293T cells transfected with CTRB1 cDNA clone (Cat# RC202806) using MegaTran 2.0 (Cat# [TT210002]).