

Product datasheet for **TR319826**

CTRB1 Human shRNA Plasmid Kit (Locus ID 1504)

Product data:

Product Type:	shRNA Plasmids
Product Name:	CTRB1 Human shRNA Plasmid Kit (Locus ID 1504)
Locus ID:	1504
Synonyms:	CTRB
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	CTRB1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 1504). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_001329190 , NM_001906 , NM_001906.1 , NM_001906.2 , NM_001906.3 , NM_001906.4 , NM_001906.5 , BC005385
UniProt ID:	P17538
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]



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shRNA Design: These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).

Performance Guaranteed: OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).