

Product datasheet for TR510662

Cd247 Mouse shRNA Plasmid (Locus ID 12503)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Cd247 Mouse shRNA Plasmid (Locus ID 12503)
Locus ID:	12503
Synonyms:	4930549J05Rik; A430104F18Rik; AW552088; Cd3; Cd3-eta; Cd3-zeta; Cd3h; Cd3z; Cd3zeta; T3z; Tcrk
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Cd247 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 12503). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	BC052824 , NM_001113391 , NM_001113392 , NM_001113393 , NM_001113394 , NM_031162 , NR_103716 , NM_001113391.1 , NM_001113391.2 , NM_001113392.1 , NM_001113392.2 , NM_001113393.1 , NM_001113393.2 , NM_031162.1 , NM_031162.2 , NM_031162.3 , NM_031162.4 , NM_001113394.1 , NM_001113394.2 , BM240376
UniProt ID:	P24161
Summary:	Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response. When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR-mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD3Z. All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain. Upon TCR engagement, these motifs become phosphorylated by Src family protein tyrosine kinases LCK and FYN, resulting in the activation of downstream signaling pathways. CD3Z ITAMs phosphorylation creates multiple docking sites for the protein kinase ZAP70 leading to ZAP70 phosphorylation and its conversion into a catalytically active enzyme. Plays an important role in intrathymic T-cell differentiation. Additionally, participates in the activity-dependent synapse formation of retinal ganglion cells (RGCs) in both the retina and dorsal lateral geniculate nucleus (dLGN). [UniProtKB/Swiss-Prot Function]



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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).