

Product datasheet for TL516947V

OriGene Technologies, Inc.

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Cd3e Mouse shRNA Lentiviral Particle (Locus ID 12501)

Product data:

Product Type: shRNA Lentiviral Particles

Product Name: Cd3e Mouse shRNA Lentiviral Particle (Locus ID 12501)

Locus ID: 12501

Synonyms: AI504783; CD3; CD3epsilon; T3e

Vector: pGFP-C-shLenti (TR30023)

Format: Lentiviral particles

Components: Cd3e - Mouse shRNA lentiviral particles (4 unique 29mer target-specific shRNA, 1 scramble

control), 0.5 ml each, >10^7 TU/ml.

RefSeq: NM 007648, NM 007648.1, NM 007648.2, NM 007648.3, NM 007648.4, BC145926, BC028636,

BC098236, BC145954, NM 007648.5

UniProt ID: P22646

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. In addition of this role of signal transduction in

T-cell activation, CD3E plays an essential role in correct T-cell development

(PubMed:19956738, PubMed:24899501). Participates also in internalization and cell surface down-regulation of TCR-CD3 complexes via endocytosis sequences present in CD3E cytosolic

region.[UniProtKB/Swiss-Prot Function]

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 <u>techsupport@origene.com</u>. If you need a special design or shRNA sequence, please utilize our <u>custom shRNA service</u>.







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).