

## **Product datasheet for TL320403V**

## OriGene Technologies, Inc.

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## LIM Kinase 1 (LIMK1) Human shRNA Lentiviral Particle (Locus ID 3984)

**Product data:** 

**Product Type:** shRNA Lentiviral Particles

**Product Name:** LIM Kinase 1 (LIMK1) Human shRNA Lentiviral Particle (Locus ID 3984)

**Locus ID:** 3984

Synonyms: LIMK; LIMK-1

**Vector:** pGFP-C-shLenti (TR30023)

Format: Lentiviral particles

Components: LIMK1 - Human shRNA lentiviral particles (4 unique 29mer target-specific shRNA, 1 scramble

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

RefSeq: NM 001204426, NM 002314, NM 016735, NM 002314.1, NM 002314.2, NM 002314.3,

NM 001204426.1, BC148340, BC152982, NM 001204426.2, NM 002314.4

UniProt ID: P53667

Summary: There are approximately 40 known eukaryotic LIM proteins, so named for the LIM domains

they contain. LIM domains are highly conserved cysteine-rich structures containing 2 zinc fingers. Although zinc fingers usually function by binding to DNA or RNA, the LIM motif probably mediates protein-protein interactions. LIM kinase-1 and LIM kinase-2 belong to a small subfamily with a unique combination of 2 N-terminal LIM motifs and a C-terminal protein kinase domain. LIMK1 is a serine/threonine kinase that regulates actin polymerization

via phosphorylation and inactivation of the actin binding factor cofilin. This protein is ubiquitously expressed during development and plays a role in many cellular processes associated with cytoskeletal structure. This protein also stimulates axon growth and may play a role in brain development. LIMK1 hemizygosity is implicated in the impaired visuospatial constructive cognition of Williams syndrome. Alternative splicing results in multiple transcript

variants encoding distinct isoforms.[provided by RefSeq, Feb 2011]

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).