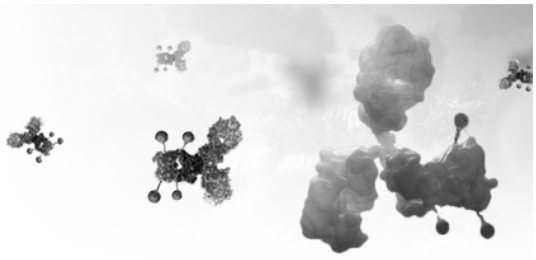

LIMK1 peptide (DAG-P1643)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description	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]
Specificity	Highest expression in both adult and fetal nervous system. Detected ubiquitously throughout the different regions of adult brain, with highest levels in the cerebral cortex. Expressed to a lesser extent in heart and skeletal muscle.
Purity	70 - 90% by HPLC.
Conjugate	Unconjugated
Sequence Similarities	Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family.Contains 2 LIM zinc-binding domains.Contains 1 PDZ (DHR) domain.Contains 1 protein kinase domain.
Format	Liquid
Preservative	None
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Information available upon request.

GENE INFORMATION

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Gene Name	LIMK1 LIM domain kinase 1 [Homo sapiens (human)]
Official Symbol	LIMK1
Synonyms	LIMK1; LIM domain kinase 1; LIMK; LIMK-1; LIM motif-containing protein kinase;
Entrez Gene ID	3984
mRNA Refseq	NM_001204426.1
Protein Refseq	NP_001191355.1
UniProt ID	P53667
Chromosome Location	7q11.23
Pathway	Axon guidance, organism-specific biosystem; Axon guidance, conserved biosystem; Axon guidance, organism-specific biosystem; CDC42 signaling events, organism-specific biosystem; CXCR4-mediated signaling events, organism-specific biosystem; Caspase cascade in apoptosis, organism-specific biosystem; Developmental Biology, organism-specific biosystem; Fc gamma R-mediated phagocytosis, organism-specific biosystem; Fc gamma R-mediated phagocytosis, conserved biosystem; Fcgamma receptor (FCGR) dependen
Function	ATP binding; heat shock protein binding; protein binding; protein heterodimerization activity; protein kinase activity; protein serine/threonine kinase activity; zinc ion binding;

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