

Recombinant Rat Vim protein, His-tagged

Cat. No. Vim-252R Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Rat Vim fused with His tag was expressed in E. coli.

Species Rat

Source E.coli

Description

Vimentin, also known as VIM. It is the major subunit protein of the intermediate filaments of mesenchymal cells. It is believed to be involved with the intracellular transport of proteins between the nucleus and plasma membrane. Vimentin has been implicated to be involved in the rate of steroid synthesis via its role as a storage network for steroidogenic cholesterol containing lipid droplets. Vimentin phosphorylation by a protein kinase causes the breakdown of intermediate filaments and activation of an ATP and myosin light chain dependent contractile event. This results in cytoskeletal changes that facilitate the interaction of the lipid droplets within mitochondria, and subsequent transport of cholesterol to the organelles leading to an increase in steroid synthesis. Immunohistochemical staining for Vimentin is characteristic of sarcomas (of neural, muscle and fibroblast origin) compared to carcinomas which are generally negative. Melanomas, lymphomas and vascular tumors may all stain for Vimentin. Vimentin antibodies are thus of value in the differential diagnosis of undifferentiated neoplasms and malignant tumors. They are generally used with a panel of other antibodies including those recognizing cytokeratins, lymphoid markers, S100, desmin and neurofilaments.

Form Lyophilized from sterile PBS, pH 7.4

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Purity	> 95 % as determined by SDS-PAGE
Storage	Store at -70 centigrade. Avoid repeated freeze/thaw cycles.
GENE INFORMATION	
Gene Name	Vim vimentin [<i>Rattus norvegicus</i>]
Official Symbol	Vim
Synonyms	VIM; vimentin;
Gene ID	81818
mRNA Refseq	NM_031140
Protein Refseq	NP_112402
UniProt ID	P31000
Chromosome Location	17q12.3
Pathway	Alpha6-Beta4 Integrin Signaling Pathway, organism-specific biosystem; Apoptosis, organism-specific biosystem; Apoptotic cleavage of cellular proteins, organism-specific biosystem; Apoptotic executionphase, organism-specific biosystem; Caspase-mediated cleavage of cytoskeletal proteins, organism-specific biosystem; Muscle contraction, organism-specific biosystem; Striated Muscle Contraction, organism-specific biosystem;
Function	identical protein binding; identical protein binding; kinase binding; protein C-terminus

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binding; protein C-terminus binding; protein binding; protein kinase binding; structural constituent of cytoskeleton; structural constituent of cytoskeleton; structural constituent of eye lens; structural constituent of eye lens; structural molecule activity; structural molecule activity; structural molecule activity;

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