Recombinant Protein Technical Manual

Recombinant Human DDR1 Kinase/MCK10 Protein (aa 444-913, His & GST Tag)(Active)

RPES1613

Product Data:

Product SKU: RPES1613

Size: 20µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: Q08345

Protein Information:

Molecular Mass:	80 kDa
AP Molecular Mass:	80 kDa
Tag:	N-His & GST
Bio-activity:	The specific activity was determined to be 2.75 nmol/min/mg using synthetic AXLtide peptide(CKKSRGDYMTMQIG) as substrate.
Purity:	> 89 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg as determined by the LAL method.
Storage:	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping:	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at<-20°C.
Formulation:	Supplied as sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% glycerol, 3mM DTT
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	CAK;CD167;DDR;EDDR1;HGK2;MCK10;NEP;NTRK4;PTK3;PTK3A;RTK6;TRKE

Immunogen Information:

Sequence: Arg444-Val913

Background:

Discoidin domain receptor family, member 1 (DDR1), also known as or CD167a (cluster of differentiation 167a), and Mammary carcinoma kinase 10 (MCK10), belongs to a subfamily of tyrosine kinase receptors with an extracellular domain homologous to Dictyostellium discoideum protein discoidin 1. Receptor tyrosine kinases play a key role in the communication of cells with their microenvironment. These kinases are involved in the regulation of cell growth, differentiation and metabolism. Expression of DDR1/MCK10/CD167 is restricted to epithelial cells, particularly in the kidney, lung, gastrointestinal tract, and brain. In addition, it has been shown to be significantly overexpressed in several human tumors. DDR1/MCK10/CD167 plays an important role in regulating attachment to collagen, chemotaxis, proliferation, and MMP production in smooth muscle cells. DDR1 functions in a feedforward loop to increase p53 levels and at least some of its effectors. Inhibition of DDR1 function resulted in strikingly increased apoptosis of wild-type p53-containing cells in response to genotoxic stress through a caspase-dependent pathway.