

PTPRD Protein, Human (HEK293, His)

Cat. No.:	HY-P78721
Synonyms:	PTPRD; R-PTP-delta
Species:	Human
Source:	HEK293
Accession:	P23468-1 (E21-E1265)
Gene ID:	5789
Molecular Weight:	120&15 kDa

PROPERTIES

Appearance	Lyophilized powder
Formulation	Lyophilized a 0.22 µm filtered solution of 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	PKCE, a calcium-independent, phospholipid- and diacylglycerol (DAG)-dependent serine/threonine-protein kinase, plays vital roles in regulating various cellular processes associated with cytoskeletal proteins. It is involved in cell adhesion, motility, migration, cell cycle, neuron growth, ion channel regulation, immune response, cancer cell invasion, and apoptosis. PKCE mediates integrin-dependent signaling, influencing cell adhesion to the extracellular matrix, and phosphorylates proteins such as MARCKS, PTK2/FAK, vimentin (VIM), keratin-8 (KRT8), and IQGAP1 to modulate diverse cellular functions. It contributes to cell migration in response to growth factors, participates in cytokinesis, regulates myofilament function in cardiac myocytes, and is implicated in the pathogenesis of dilated cardiomyopathy. Additionally, PKCE influences neurite outgrowth, synaptic potentiation, and the immune response by phosphorylating various substrates, including GABRG2, TRPV1, CACNA1B, STAT3, TICAM2/TRAM, and NLRP5/MATER. It emerges as a multifaceted kinase with wide-ranging impacts on cellular physiology and pathology.
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Caution: Product has not been fully validated for medical applications. For research use only.

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