

Recombinant Mouse Pdcd6 Protein, Myc/DDK-tagged

Cat. No. Pdcd6-4735M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length programmed cell death 6 (Pdcd6), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Calcium sensor that plays a key role in processes such as endoplasmic reticulum (ER)-Golgi vesicular transport, endosomal biogenesis or membrane repair. Acts as an adapter that bridges unrelated proteins or stabilizes weak protein-protein complexes in response to calcium: calcium-binding triggers exposure of apolar surface, promoting interaction with different sets of proteins thanks to 3 different hydrophobic pockets, leading to translocation to membranes. Involved in ER-Golgi transport by promoting the association between PDCD6IP and TSG101, thereby bridging together the ESCRT-III and ESCRT-I complexes. Together with PEF1, acts as calcium-dependent adapter for the BCR(KLHL12) complex, a complex involved in ER-Golgi transport by regulating the size of COPII coats. In response to cytosolic calcium increase, the heterodimer formed with PEF1 interacts with, and bridges together the BCR(KLHL12) complex and SEC31 (SEC31A or SEC31B), promoting monoubiquitination of SEC31 and subsequent collagen export, which is required for neural crest specification. Involved in the regulation of the distribution and function of MCOLN1 in the endosomal pathway. Promotes localization and polymerization of TFG at endoplasmic reticulum exit site. Required for T-cell receptor-, Fas-, and glucocorticoid-induced apoptosis. May mediate Ca²⁺-regulated signals along the

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death pathway: interaction with DAPK1 can accelerate apoptotic cell death by increasing caspase-3 activity. Its role in apoptosis may however be indirect, as suggested by knockout experiments May inhibit KDR/VEGFR2-dependent angiogenesis; the function involves inhibition of VEGF-induced phosphorylation of the Akt signaling pathway.

Molecular Mass	21.9 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Pdcd6 programmed cell death 6 [Mus musculus (house mouse)]
Official Symbol	Pdcd6
Synonyms	PDCD6; programmed cell death 6; programmed cell death protein 6; PMP41; ALG-257; probable calcium-binding protein ALG-2; PS2; Alg2; MA-3; alg-2; AV299538
Gene ID	18570
mRNA Refseq	NM_011051

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Protein Refseq	NP_035181
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UniProt ID	P12815
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