Recombinant Human ENTPD5 Protein (His Tag)

Catalog Number:PKSH031224

Note: Centrifuge before opening to ensure complete recovery of vial contents.

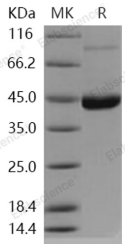
Description

Synonyms	CD39L4;NTPDase-5;PCPH
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-His 428
Accession	O75356
Calculated Molecular Weight	47.0 kDa
Observed molecular weight	45 kDa
Tag	C-His
Bioactivity	Measured by its ability to hydrolyze the 5'phosphate groups from the substrate guanosine5'diphosphate (GDP). The specific activity is > 7, 000 pmoles/min/μg.

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% glycerol Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 90 % as determined by reducing SDS-PAGE.

Background

Ectonucleoside triphosphate diphosphohydrolase 5 (ENTPD5), also known as CD39 antigen-like 4, ER-UDPase, Guanosine-diphosphatase ENTPD5, Nucleoside diphosphatase Uridine-diphosphatase ENTPD5. This hydrolase is expressed in response to phosphoinositide 3-kinase (PI3K) signaling. Activation of PI3K results in FOXO phosphorylation by AKT1 and loss of ENTPD5 transcriptional repression. It is Up-regulated in PTEN-deficient cells. Uridine diphosphatase (UDPase) that promotes protein N-glycosylation and ATP level regulation.ENTPD5 promotes protein N-glycosylation and folding in the endoplasmic reticulum, as well as elevated ATP consumption in the cytosol via

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an ATP hydrolysis cycle. Together with CMPK1 and AK1, ENTPD5 constitutes an ATP hydrolysis cycle that converts ATP to AMP and results in a compensatory increase in aerobic glycolysis. ENTPD5 also hydrolyzes GDP and IDP but not any other nucleoside di-, mono- or triphosphates, nor thiamine pyrophosphate. This enzyme Plays a key role in the AKT1-PTEN signaling pathway by promoting glycolysis in proliferating cells in response to phosphoinositide 3-kinase (PI3K) signaling.

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