Data Sheet (Cat.No.TMPK-01138)

TargetMol

PLD4 Protein, Human, Recombinant (His)

General Information

Synonyms:	5'-3' exonuclease PLD4;PLD 4;Phospholipase D4;Choline phosphatase 4
Protein Construction:	Trp52-Gly506
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q96BZ4
Molecular Weight:	51.1 kDa (predicted). Due to glycosylation, the protein migrates to 68-75 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 50 mM MES, 100 mM NaCl (pH 6.0). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in 50mM MES, 100mM NaCl (pH 6.0). The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Phospholipase D4 (PLD4) is a newly identified protein expressed in microglia. the expression of PLD4 was located in macrophages in the colon cancer mesenchymal and lymph nodes as shown by immunohistochemical analysis. furthermore, its expression was associated with clinical staging of colon cancer. Then, THP-1 as a cell model induced into TAMs. PLD4 could be involved in the activation process of M1 phenotype macrophages.

Reference

Gao L, et al. Role of APLP2 in the prognosis and clinicopathology of renal cell carcinoma. Oncol Lett. 2019 Jan;17 (1):508-513. doi: 10.3892/ol.2018.9577. Epub 2018 Oct 15. PMID: 30655794; PMCID: PMC6313182.

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