Biotinylated Human ALPG / ALPPL2 Protein, His,Avitag™ (MALS verified)





Synonym

ALPG,GCAP,ALP-1,ALPPL2,PLAP-like,ALPPL,Alkaline phosphatase, germ cell type

Source

Biotinylated Human ALPG Protein, His, Avitag(ALG-H52E1) is expressed from human 293 cells (HEK293). It contains AA Ile 20 - Asp 503 (Accession # P10696-1).

Predicted N-terminus: Ile 20

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (AvitagTM).

The protein has a calculated MW of 56.2 kDa. The protein migrates as 60-65 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using AvitagTM technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from $0.22~\mu m$ filtered solution in 50~mM Tris,150~mM NaCl,pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

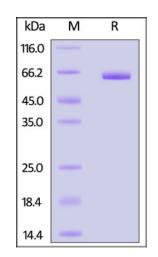
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

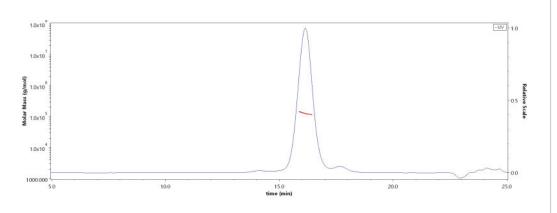
SDS-PAGE



Biotinylated Human ALPG Protein, His, Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA

SEC-MALS



The purity of Biotinylated Human ALPG Protein, His, Avitag (Cat. No. ALG-H52E1) is more than 90% and the molecular weight of this protein is around 115-135 kDa verified by SEC-MALS.

Report

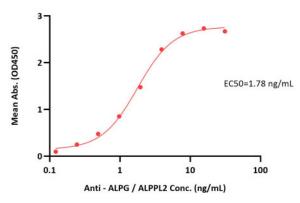


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Immobilized Biotinylated Human ALPG Protein, His,Avitag (Cat. No. ALG-H52E1) at 1 μ g/mL (100 μ L/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μ g/well) plate can bind Anti - ALPG / ALPPL2 with a linear range of 0.1-4 μ g/mL (QC tested).

Background

ALPPL2 is specifically highly expressed in naïve pluripotent stem cells. Moreover, in naïve state somatic cell reprogramming, naïve-primed transformation and other systems, the use of the ALPPL2 promoter-driven fluorescent reporter system can specifically indicate the establishment or withdrawal of naïve state pluripotency, thereby identifying ALPPL2 as naïve state pluripotent. specific cell surface markers. Some studies have found that knockout of ALPPL2 can specifically affect the establishment, stability and maintenance of naïve state pluripotency, proving that ALPPL2 protein is a functional naïve state surface molecular marker.

Clinical and Translational Updates

