

Biotinylated Human DPPIV Protein, His,Avitag™ (active enzyme)

Catalog # DP4-H82E4



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Synonym

DPP4,ADABP,ADCP2,CD26,DPPIV,TP103

Source

Biotinylated Human DPPIV Protein, His,Avitag(DP4-H82E4) is expressed from human 293 cells (HEK293). It contains AA Asp 34 - Pro 766 (Accession # [NP_001926.2](#)).

Predicted N-terminus: Asp 34

Molecular Characterization

DPPIV(Asp 34 - Pro 766)
NP_001926.2 Poly-his Avi

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

The protein has a calculated MW of 88.4 kDa. The protein migrates as 95-120 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ 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.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 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

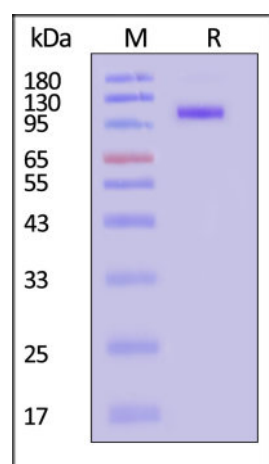
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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 DPPIV 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% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA

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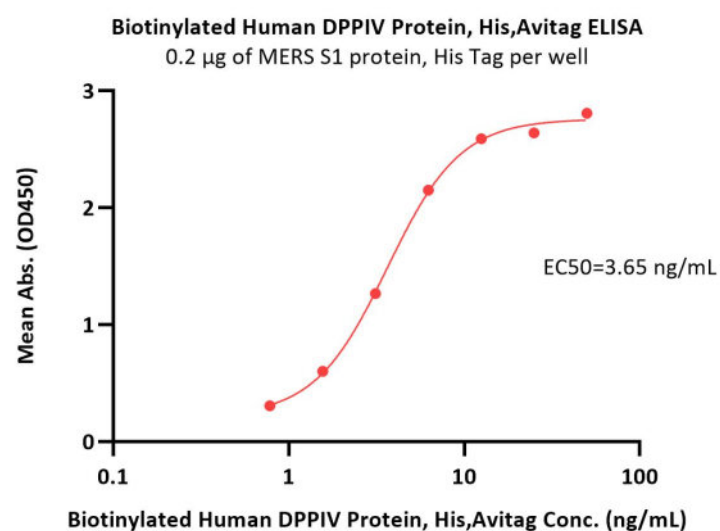
8/1/2024

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Immobilized MERS S1 protein, His Tag (Cat. No. S1N-M52H5) at 2 µg/mL (100 µL/well) can bind Biotinylated Human DPPIV Protein, His,Avitag (Cat. No. DP4-H82E4) with a linear range of 0.8-6 ng/mL (QC tested).

Bioactivity

Measured by its ability to cleave the fluorogenic peptide substrate, Gly-Pro-7-amido-4-methylcoumarin (GP-AMC). The specific activity is >10000 pmol/min/µg (QC tested).

Background

Dipeptidyl peptidase-IV (DPPIV) is also known as adenosine deaminase complexing protein 2, DPPIV or CD26 is antigenic enzyme expressed on the surface of most cell types and is associated with immune regulation, signal transduction and apoptosis. It is an intrinsic membrane glycoprotein and a serine exopeptidase that cleaves X-proline dipeptides from the N-terminus of polypeptides. The substrates of DPPIV are proline (or alanine)-containing peptides and include growth factors, chemokines, neuropeptides, and vasoactive peptides. DPPIV plays a major role in glucose metabolism. It is responsible for the degradation of incretins such as GLP-1. DPPIV plays an important role in tumor biology, and is useful as a marker for various cancers, with its levels either on the cell surface or in the serum increased in some neoplasms and decreased in others. DPPIV also binds the enzyme adenosine deaminase specifically and with high affinity. The significance of this interaction has yet to be established.

Clinical and Translational Updates

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