

PRODUCT INFORMATION



DPP-10 Extracellular Domain (human, recombinant)

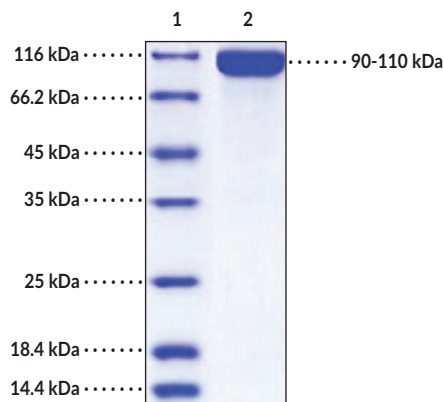
Item No. 38055

Overview and Properties

Synonyms: Dipeptidyl Peptidase 10, Dipeptidyl Peptidase IV-related Protein 3, Dipeptidyl Peptidase-like Protein 2, Dipeptidyl Peptidase Y, DPL2, DPRP-3
Source: Recombinant human N-terminal His-tagged DPP-10 expressed in HEK293 cells
Amino Acids: 56-796
Uniprot No.: Q8N608-1
Molecular Weight: 87.4 kDa
Storage: -80°C (as supplied)
Stability: ≥1 year
Purity: ≥95% estimated by SDS-PAGE
Supplied in: Lyophilized from sterile PBS, pH 7.4
Endotoxin Testing: <1.0 EU/μg, determined by the LAL endotoxin assay

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers

Lane 2: DPP-10 Extracellular Domain

SDS-PAGE Analysis of DPP-10 Extracellular Domain. This protein has a calculated molecular weight of 87.4 kDa. It has an apparent molecular weight of approximately 90-110 kDa by SDS-PAGE under reducing conditions due to glycosylation.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Dipeptidyl peptidase 10 (DPP-10) is a catalytically inactive member of the prolyl oligopeptidase protein family.¹⁻³ It is a type II transmembrane glycoprotein that lacks the serine residue of the catalytic triad essential to the serine protease activity observed in other DPPs.¹ DPP-10 is expressed at high levels in the brain, pancreas, spinal cord, and adrenal glands, with lower levels in the placenta, liver, and trachea.² Co-expression of DPP-10 with K_v4.2 voltage-gated potassium channels enhances channel currents and accelerates channel inactivation and recovery in *Xenopus* oocytes. Bronchoalveolar lavage fluid (BALF) levels of DPP-10 are increased in various mouse models of asthma, and serum levels of DPP-10 are increased in patients with NSAID-exacerbated respiratory disease (NERD).³ Cayman's DPP-10 Extracellular Domain (human, recombinant) protein consists of 760 amino acids and has a calculated molecular mass of 87.4 kDa. By SDS-PAGE, under reducing conditions, the apparent molecular mass of the protein is approximately 90-110 kDa due to glycosylation.

References

1. Bezerra, G.A., Dobrovetsky, E., Seitova, A., *et al.* Structure of human dipeptidyl peptidase 10 (DPPY): A modulator of neuronal Kv4 channels. *Sci. Rep.* **5**, 8769 (2015).
2. Jerng, H.H., Qian, Y., and Pfaffinger, P.J. Modulation of Kv4.2 channel expression and gating by dipeptidyl peptidase 10 (DPP10). *Biophys. J.* **87**(4), 2380-2396 (2004).
3. Sim, S., Choi, Y., Lee, D.-H., *et al.* Contribution of dipeptidyl peptidase 10 to airway dysfunction in patients with NSAID-exacerbated respiratory disease. *Clin. Exp. Allergy* **52**(1), 115-126 (2022).

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