HRP Conjugated Anti-Human DPP4 / CD26 Antibody [PSH19-27] - Detector

HA724059H

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Det), ELISA
Clone number:	PSH19-27

Description: Dipeptidyl peptidase-4 (DPP4 or DPPIV), also known as adenosine deaminase complexing protein 2 or CD26 (cluster of differentiation 26) is a protein that, in humans, is encoded by the DPP4 gene. DPP4 is related to FAP, DPP8, and DPP9. The enzyme was discovered in 1966 by Hopsu-Havu and Glenner, and as a result of various studies on chemism, was called dipeptidyl peptidase IV [DP IV]. The protein encoded by the DPP4 gene is an enzyme expressed on the surface of most cell types and is associated with immune regulation, signal transduction, and apoptosis. It is a type II transmembrane glycoprotein, but a soluble form, which lacks the intracellular and transmembrane part, is present in blood plasma and various body fluids. DPP-4 is a serine exopeptidase that cleaves X-proline or X-alanine dipeptides from the N-terminus of polypeptides. Peptide bonds involving the cyclic amino acid proline cannot be cleaved by the majority of proteases and an N-terminal X-proline "shields" various biopeptides.[7] Extracellular proline-specific proteases therefore play an important role in the regulation of these biopeptides. DPP-4 is known to cleave a broad range of substrates including growth factors, chemokines, neuropeptides, and vasoactive peptides. The cleaved substrates lose their biological activity in the majority of cases, but in the case of the chemokine RANTES and neuropeptide Y, DPP-4 mediated cleavage leads to a shift in the receptor subtype binding.

Conjugate:	HRP-conjugated
Immunogen:	Recombinant protein within Human DPP4 aa 29-766 (HA211034).
Positive control:	Recombinant Human DPP4 / CD26 protein (HA211034).
Subcellular location:	Secreted, Cell membrane, Apical cell membrane, invadopodium membrane, lamellipodium membrane, Cell junction, Membrane raft.
Database links:	SwissProt: P27487 Human

Recommended Dilutions:

ELISA(Det)	Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH19-26] to Human DPP4 / CD26 antibody (Capture) (HA724058) or Rabbit monoclonal [PSH19-28] to Human DPP4 / CD26 antibody (Capture) (HA724060) and Recombinant Human DPP4 / CD26 protein (HA211034) as the standard. The reference range value is 78.13-10,000 pg/mL.
ELISA	Use at an assay dependent concentration.
Storage Buffer:	1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.
Storage Instruction:	Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.
Purity:	Protein A affinity purified.

Images

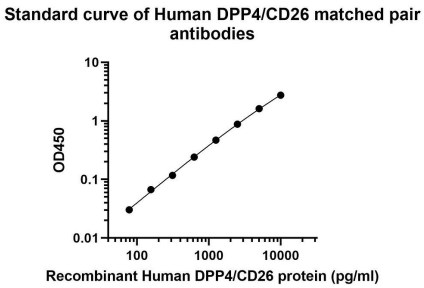

Fig1: Sandwich ELISA analysis of Human DPP4 matched pair antibodies

Capture: HA724058, Human DPP4 / CD26 Rabbit mAb [PSH19-26]
Detector: HA724059, Human DPP4 / CD26 Rabbit mAb [PSH19-27]

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA724058) diluted in carbonate/bicarbonate buffer, at a concentration of 5 µg/mL overnight at 4℃. Wells of the plate were washed, blocked with 150 µl 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human DPP4 / CD26 protein (HA211034) starting from 10,000 pg/ml to 0 pg/ml and detect antibody (HA724059, HRP, 0.2 µg/ml) for 1 hour at 30℃ with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

Background References

1. Love KM et al. DPP4 Activity, Hyperinsulinemia, and Atherosclerosis. J Clin Endocrinol Metab. 2021 May
2. Chen SY et al. DPP4 as a Potential Candidate in Cardiovascular Disease. J Inflamm Res. 2022 Sep