abcam

ab42897

Biotin Anti-DPP4 antibody [H207-1082]

Anti-DPP4 antibody [H207-1082] conjugated to Biotin - suitable for flow cytometry, and reacts with mouse samples. Clone [H207-1082] is a rat monoclonal antibody.

Key facts

Isotype	IgG2a
Host species	Rat
Conjugation	Biotin
Storage buffer	pH: 7.4 Preservative: 0.09% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Clone number	H207-1082
Purification technique	Affinity purification Protein G
Purification notes	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant.

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	Use 10µl of the suggested working dilution to label 1x10^6 cells in 100µl.

Target data

See full target information DPP4

Function	Cell surface glycoprotein receptor involved in the costimulatory signal essential for T-cell receptor (TCR)-mediated T-cell activation (PubMed:10900005, PubMed:10951221, PubMed:11772392, PubMed:17287217). Acts as a positive regulator of T-cell coactivation, by binding at least ADA, CAV1, IGF2R, and PTPRC (PubMed:10900005, PubMed:10951221, PubMed:11772392, PubMed:14691230). Its binding to CAV1 and CARD11 induces T-cell proliferation and NF-kappa-B activation in a T-cell receptor/CD3-dependent manner (PubMed:17287217). Its interaction with ADA also regulates lymphocyte-epithelial cell adhesion (PubMed:11772392). In association with FAP is involved in the pericellular proteolysis of the extracellular matrix (ECM), the migration and invasion of endothelial cells into the ECM (PubMed:10593948, PubMed:16651416). May be involved in the promotion of lymphatic endothelial cells adhesion, migration and tube formation (PubMed:18708048). When overexpressed, enhanced cell proliferation, a process inhibited by GPC3 (PubMed:17549790). Also acts as a serine exopeptidase with a dipeptidyl peptidase activity that regulates various physiological processes by cleaving peptides in the circulation, including many chemokines, mitogenic growth factors, neuropeptides and peptide hormones such as brain natriuretic peptide 32 (PubMed:10570924, PubMed:16254193). Removes N-terminal dipeptides sequentially from polypeptides having unsubstituted N-termini provided that the penultimate residue is proline (PubMed:10593948). (Microbial infection) Acts as a receptor for human coronavirus MERS-CoV-2.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Dipeptidyl peptidase 4 also known as DPP4 or CD26 functions as a serine exopeptidase. This enzyme is involved in cleaving dipeptides from the N-terminus of polypeptides. DPP4 with a mass of approximately 110 kDa is expressed in

	various tissues such as the liver intestines kidney and lymphocytes. It exists in both a membrane-bound form and a soluble form in blood plasma.
Biological function summary	DPP4 plays a significant role in glucose metabolism and immune function. The enzyme interacts with members of the immune system and regulates proteins such as chemokines growth factors and neuropeptides. DPP4 acts independently and is not known to be part of a larger complex. It modulates biological processes by inactivating peptide hormones and signaling molecules which impacts glucose homeostasis and immune responses.
Pathways	DPP4 impacts the incretin signaling pathway and the immune response pathway. Incretin hormones like glucagon-like peptide-1 (GLP-1) and glucose-dependent insulinotropic polypeptide (GIP) are substrates of DPP4 and play important roles in glucose metabolism. DPP4 also interacts with proteins such as adenosine deaminase (ADA) which impacts T-cell function and immune regulation. The regulation of these pathways by DPP4 influences metabolic and immune health.
Associated diseases and disorders	DPP4 involvement is relevant in type 2 diabetes and immunological disorders. In type 2 diabetes DPP4 inhibitors modulate the incretin hormones improving glycemic control. Proteins like GLP-1 are affected by DPP4 activity connecting it to diabetes management. In autoimmune diseases altered DPP4 expression can impact immune cell functions influencing conditions such as rheumatoid arthritis. Through its effects on ADA and associated pathways DPP4 can influence both metabolic and immune-related disorders.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

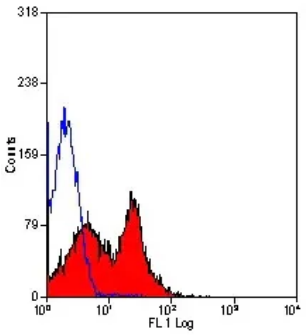
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:

1 product image



Flow Cytometry - Biotin Anti-DPP4 antibody [H207-1082] (ab42897)

DPP4 Flow Cytometry staining of Mouse peripheral blood lymphocytes using rat Anti-DPP4 antibody

Staining of mouse peripheral blood lymphocytes with biotinylated Rat anti Mouse CD26 antibody, clone H207-1082 (Red histogram) used neat. Isotype control is represented by the blue histogram. Use 10µl of the suggested working dilution to $1x10^6$ cells in 100µl.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.