10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CD26 (DPP IV / ADA-Binding Protein) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone DPP4/910]
Catalog # AH11155

Product Information

Application	IF, FC, IHC-F
Primary Accession	P27487
Other Accession	1803, 368912
Reactivity	Human, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2b, kappa
Clone Names	DPP4/910
Calculated MW	88279

Additional Information

Gene ID	1803
Other Names	Dipeptidyl peptidase 4, 3.4.14.5, ADABP, Adenosine deaminase complexing protein 2, ADCP-2, Dipeptidyl peptidase IV, DPP IV, T-cell activation antigen CD26, TP103, CD26, Dipeptidyl peptidase 4 membrane form, Dipeptidyl peptidase IV membrane form, Dipeptidyl peptidase 4 soluble form, Dipeptidyl peptidase IV soluble form, DPP4, ADCP2, CD26
Application Note	IF~~1:50~200 FC~~1:10~50 IHC-F~~N/A
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	CD26 (DPP IV / ADA-Binding Protein) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DPP4 (HGNC:3009)
Synonyms	ADCP2, CD26
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).
Cellular Location	[Dipeptidyl peptidase 4 soluble form]: Secreted Note=Detected in the serum and the seminal fluid
Tissue Location	Expressed specifically in lymphatic vessels but not in blood vessels in the skin, small intestine, esophagus, ovary, breast and prostate glands. Not detected in lymphatic vessels in the lung, kidney, uterus, liver and stomach (at protein level). Expressed in the poorly differentiated crypt cells of the small intestine as well as in the mature villous cells. Expressed at very low levels in the colon

Background

Recognizes a glycoprotein of 110kDa, identified as CD26. It is an atypical serine protease belonging to the prolyl oligopeptidase family. It is expressed on lymphocyte cells and is upregulated during T-cell activation. CD26 is also expressed on activated B cells and natural killer cells and abundantly on epithelia. CD26 is implicated in a variety of biological functions including T-cell activation, cell adhesion with extracellular matrix such as fibronectin or collagens, and in HIV infection.

References

Fleischer B. CD26: a surface protease involved in T-cell activation. Immunol Today 1994, 15(4):180-184. | Abbott CA. et. al. Genomic organization, exact localization, and tissue expression of the human CD26 (dipeptidyl peptidase IV) gene. Immunogenetics 1994, 40:331-338. | Valenzuela A et. al. HIV-1 envelope gp120 and viral particles block adenosine deaminase binding to human CD26. Adv Exp Med Biol 1997, 421:185-192. | Cheng HC, et al. Lung endothelial dipeptidyl peptidase IV promotes adhesion and metastasis of rat breast cancer cells via tumor cell surface-associated fibronectin. J Biol Chem. 1998 273(37):24207-24015

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