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DPP4 Blocking Peptide (N-term)

Synthetic peptide
Catalog # BP19836a

Specification

DPP4 Blocking Peptide (N-term) - Product Information

Primary Accession	P27487
Other Accession	NP_001926

DPP4 Blocking Peptide (N-term) - Additional Information

Gene ID 1803

Other Names
Dipeptidyl peptidase 4, 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

Target/Specificity
The synthetic peptide sequence is selected from aa 61-74 of HUMAN DPP4

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

DPP4 Blocking Peptide (N-term) - 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:10951221, PubMed:10900005, PubMed:11772392, PubMed:17287217). Acts as a positive regulator of T-cell coactivation, by binding at least ADA, CAV1, IGF2R, and PTPRC (PubMed:10951221, PubMed:10900005, PubMed:<a href="http://www.uniprot.org/citations/11772392"

target="_blank">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:16651416, PubMed:10593948). 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). Acts also 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:16254193, PubMed:10570924). 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

DPP4 Blocking Peptide (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

DPP4 Blocking Peptide (N-term) - Images

DPP4 Blocking Peptide (N-term) - Background

The protein encoded by this gene is identical to adenosine deaminase complexing protein-2, and to the T-cell activation antigen CD26. It is an intrinsic membrane glycoprotein and a serine exopeptidase that cleaves X-proline dipeptides from the N-terminus of polypeptides.

DPP4 Blocking Peptide (N-term) - References

Takasawa, W., et al. Biochem. Biophys. Res. Commun. 401(1):7-12(2010)
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Tansi, F.L., et al. Virol. J. 7, 267 (2010) :
Firneisz, G., et al. PLoS ONE 5 (8), E12226 (2010) :
Johnatty, S.E., et al. PLoS Genet. 6 (7), E1001016 (2010) :