




Product datasheet

Anti-DPP4 antibody ab231973

8 Images

Overview

Product name	Anti-DPP4 antibody
Description	Rabbit polyclonal to DPP4
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Human, Pig Predicted to work with: Cow 
Immunogen	Recombinant fragment (His-tag) corresponding to Human DPP4 aa 450-750. (Expressed in E.coli). Database link: P27487  Run BLAST with  Run BLAST with
Positive control	IHC-P: Human kidney, glioma, prostate, skin cancer, breast cancer and prostate cancer tissues. WB: Recombinant human CD26 protein; Pig kidney and liver lysates.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.011% Proclin 300 Constituents: 55.77% Glycerol (glycerin, glycerine), 44.219% PBS
Purity	Immunogen affinity purified
Purification notes	ab231973 was purified by antigen-specific affinity chromatography followed by Protein A affinity chromatography.

Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab231973 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 1 - 5 µg/ml. Predicted molecular weight: 88 kDa.
IHC-P		Use a concentration of 5 - 20 µg/ml.

Target

Function Cell surface glycoprotein receptor involved in the costimulatory signal essential for T-cell receptor (TCR)-mediated T-cell activation. Acts as a positive regulator of T-cell coactivation, by binding at least ADA, CAV1, IGF2R, and PTPRC. Its binding to CAV1 and CARD11 induces T-cell proliferation and NF-kappa-B activation in a T-cell receptor/CD3-dependent manner. Its interaction with ADA also regulates lymphocyte-epithelial cell adhesion. 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. May be involved in the promotion of lymphatic endothelial cells adhesion, migration and tube formation. When overexpressed, enhanced cell proliferation, a process inhibited by GPC3. 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. Removes N-terminal dipeptides sequentially from polypeptides having unsubstituted N-termini provided that the penultimate residue is proline.

Tissue specificity 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.

Sequence similarities Belongs to the peptidase S9B family. DPPIV subfamily.

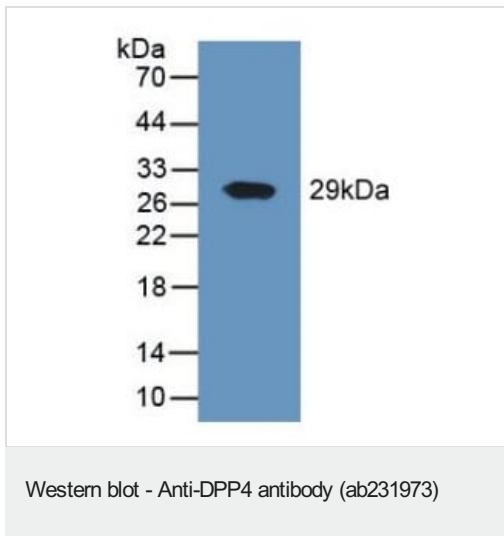
Domain The extracellular cysteine-rich region is necessary for association with collagen, dimer formation and optimal dipeptidyl peptidase activity.

Post-translational modifications The soluble form (Dipeptidyl peptidase 4 soluble form also named SDPP) derives from the membrane form (Dipeptidyl peptidase 4 membrane form also named MDPP) by proteolytic processing.
N- and O-Glycosylated.
Phosphorylated. Mannose 6-phosphate residues in the carbohydrate moiety are necessary for interaction with IGF2R in activated T-cells. Mannose 6-phosphorylation is induced during T-cell activation.

Cellular localization Cell membrane. Apical cell membrane. Cell projection > invadopodium membrane. Cell projection > lamellipodium membrane. Cell junction. Membrane raft. Translocated to the apical

membrane through the concerted action of N- and O-Glycans and its association with lipid microdomains containing cholesterol and sphingolipids. Redistributed to membrane rafts in T-cell in a interleukin-12-dependent activation. Its interaction with CAV1 is necessary for its translocation to membrane rafts. Colocalized with PTPRC in membrane rafts. Colocalized with FAP in invadopodia and lamellipodia of migratory activated endothelial cells in collagenous matrix. Colocalized with FAP on endothelial cells of capillary-like microvessels but not large vessels within invasive breast ductal carcinoma. Colocalized with ADA at the cell junction in lymphocyte-epithelial cell adhesion. Colocalized with IGF2R in internalized cytoplasmic vesicles adjacent to the cell surface and Secreted. Detected in the serum and the seminal fluid.

Images

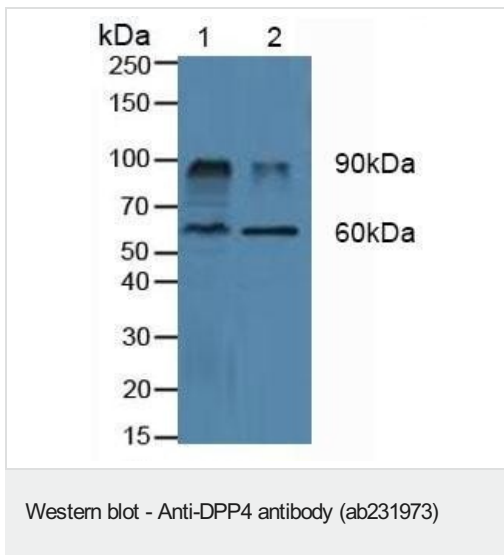


Anti-DPP4 antibody (ab231973) at 2 µg/ml + Recombinant human CD26 protein

Secondary

HRP-Linked Guinea pig Anti-Rabbit at 1/2000 dilution

Predicted band size: 88 kDa



All lanes : Anti-DPP4 antibody (ab231973) at 2 µg/ml

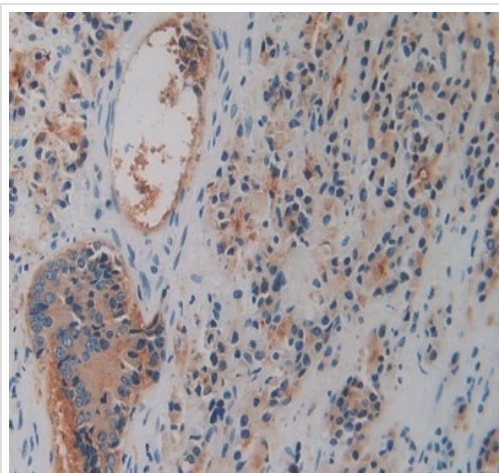
Lane 1 : Pig kidney lysate

Lane 2 : Pig liver lysate

Secondary

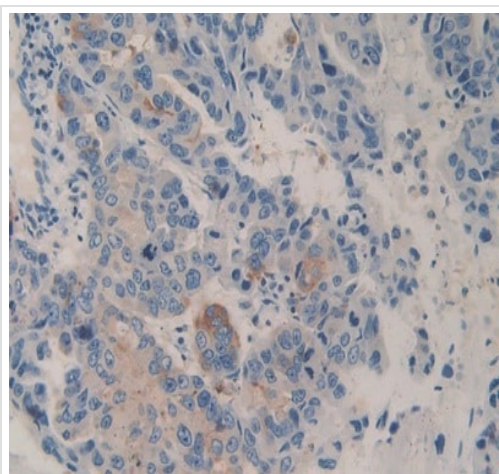
All lanes : HRP-Linked Guinea pig Anti-Rabbit at 1/2000 dilution

Predicted band size: 88 kDa



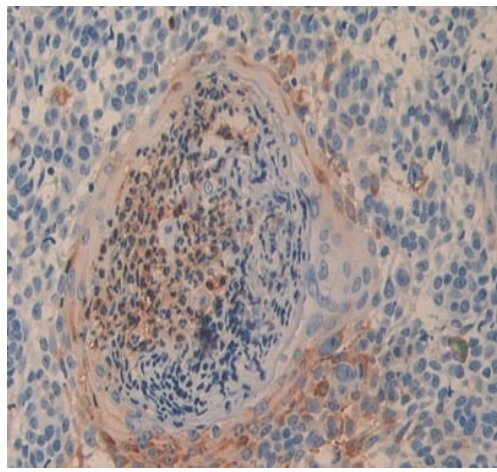
Paraffin-embedded human prostate cancer tissue stained for CD26 using ab231973 at 20 $\mu\text{g/ml}$ in immunohistochemical analysis. DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DPP4 antibody (ab231973)



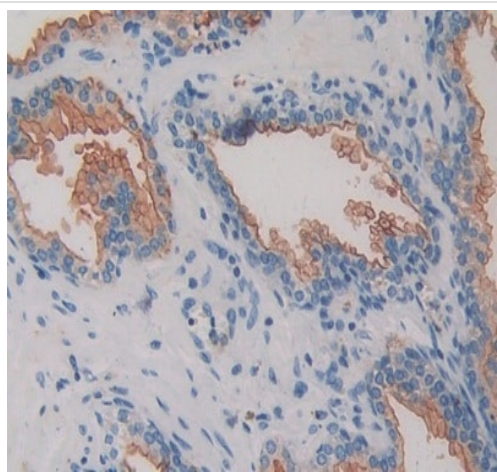
Paraffin-embedded human breast cancer tissue stained for CD26 using ab231973 at 20 $\mu\text{g/ml}$ in immunohistochemical analysis. DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DPP4 antibody (ab231973)



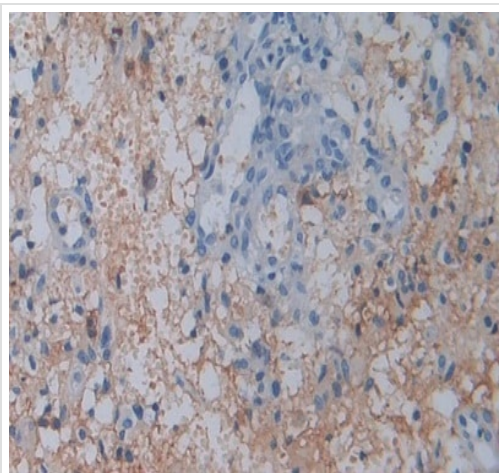
Paraffin-embedded human skin cancer tissue stained for CD26 using ab231973 at 20 $\mu\text{g/ml}$ in immunohistochemical analysis. DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DPP4 antibody (ab231973)



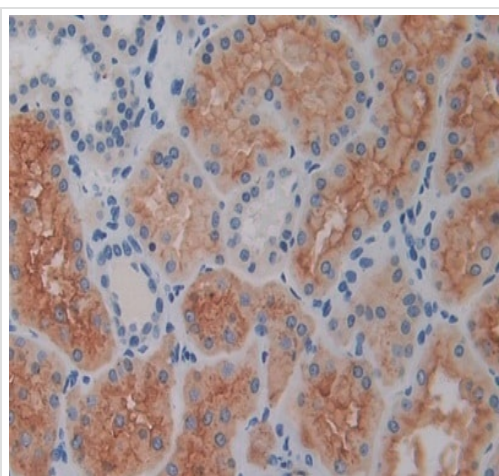
Paraffin-embedded human prostate tissue stained for CD26 using ab231973 at 20 $\mu\text{g/ml}$ in immunohistochemical analysis. DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DPP4 antibody (ab231973)



Paraffin-embedded human glioma tissue stained for CD26 using ab231973 at 20 µg/ml in immunohistochemical analysis. DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DPP4 antibody (ab231973)



Paraffin-embedded human kidney tissue stained for CD26 using ab231973 at 20 µg/ml in immunohistochemical analysis. DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DPP4 antibody (ab231973)

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