Human DPPIV/CD26 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1180

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human DPPIV/CD26 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant mouse DPPIV is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human DPPIV/CD26 (Catalog # 1180-SE) Asp34-Pro766 Accession # Q53TN1
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

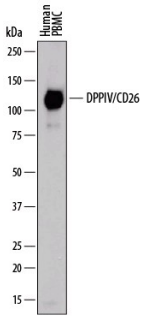
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.2 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	Immersion fixed paraffin-embedded sections of human prostate and skin

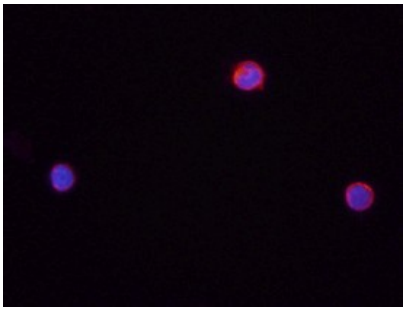
DATA

Western Blot



Detection of Human DPPIV/CD26 by Western Blot. Western blot shows lysates of human peripheral blood mononuclear cells (PBMC). PVDF membrane was probed with 0.2 µg/mL of Goat Anti-Human DPPIV/CD26 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1180) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for DPPIV/CD26 at approximately 110 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



DPPIV/CD26 in Human PBMCs. DPPIV/CD26 was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) using Goat Anti-Human DPPIV/CD26 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1180) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (yellow; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

DPPIV/CD26 (EC 3.4.14.5) is a serine exopeptidase that releases Xaa-Pro dipeptides from the N-terminus of oligo- and polypeptides. It is a type II membrane protein consisting of a short cytoplasmic tail, a transmembrane domain, and a long extracellular domain. The extracellular domain contains glycosylation sites, a cysteine-rich region and the catalytic active site (Ser, Asp and His charge relay system). The amino acid sequence of the mouse DPPIV/CD26 extracellular domain is 84% and 91% identical to the human and rat counterparts, respectively. In the native state, DPPIV/CD26 is present as a noncovalently linked homodimer on the cell surface of a variety of cell types. The soluble form is also detectable in human serum and other body fluids, the levels of which may have clinical significance in patients with cancer, liver and kidney diseases, and depression.

DPPIV/CD26 plays an important role in many biological and pathological processes. It functions as T cell-activating molecule (THAM). It serves as a cofactor for entry of HIV in $CD4^+$ cells. It binds adenosine deaminase, the deficiency of which causes severe combined immunodeficiency disease in humans. It cleaves chemokines such as stromal-cell-derived factor 1α and macrophage-derived chemokine. It degrades peptide hormones such as glucagon. It truncates procalcitonin, a marker for systemic bacterial infections with elevated levels detected in patients with thermal injury, sepsis and severe infection, and in children with bacterial meningitis.