Human DPPIV/CD26 PE-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 222113

Catalog Number: FAB1180P

100 TESTS

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human DPPIV/CD26 in ELISAs and Western blots. In ELISAs and Western blots, no cross-reactivity with recombinant human Cathepsin A or recombinant mouse DPPIV is observed.
Source	Monoclonal Rat IgG_{2A} Clone # 222113
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human DPPIV/CD26 Asp34-Pro766 Accession # Q53TN1
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

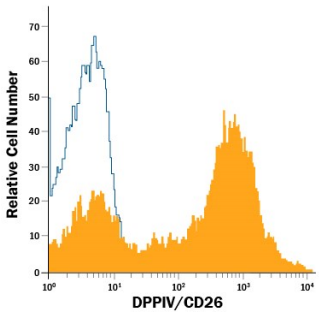
APPLICATIONS

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
Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of DPPIV/CD26 in Peripheral Blood Lymphocytes by Flow Cytometry. Peripheral blood lymphocytes were stained with Rat Anti-Human DPPIV/CD26 PE-conjugated Monoclonal Antibody (Catalog # FAB1180P, filled histogram) or isotype control antibody (Catalog # IC006P, open histogram). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

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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 (1, 2). It is a type II membrane protein consisting of a short cytoplasmic tail, a transmembrane domain, and a long extracellular domain (3-5). 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 (6). It binds adenosine deaminase, the deficiency of which causes severe combined immunodeficiency disease in humans (7). It cleaves chemokines such as Stromal-cell-Derived Factor 1α (SDF-1α) and Macrophage-Derived Chemokine (MDC, also CCL22) (8, 9). It degrades peptide hormones such as glucagon (10). 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 (11).

References:

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