Mouse DPPIV/CD26 Antibody

Monoclonal Rat IgG_{2A} Clone # 155202

Catalog Number: MAB9541

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse DPPIV/CD26 in direct ELISAs.
Source	Monoclonal Rat IgG_{2A} Clone # 155202
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse DPPIV/CD26 Extracellular domain
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

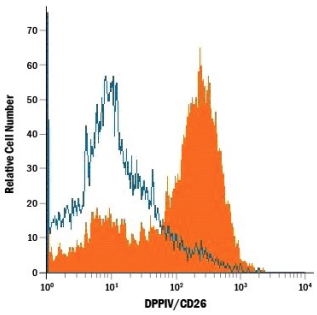
APPLICATIONS

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	0.25 µg/10^6 cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

Flow Cytometry



Detection of DPPIV/CD26 in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes were stained with Rat Anti-Mouse DPPIV/CD26 Monoclonal Antibody (Catalog # MAB9541, filled histogram) or isotype control antibody (Catalog # MAB006, open histogram), followed by Phycoerythrin-conjugated Anti-Rat IgG Secondary Antibody (Catalog # F0105B).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
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.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956

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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 co-factor 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 and macrophage-derived chemokine (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:

1. Misumi, Y. and Y. Ikehara (2004) in *Handbook of Proteolytic Enzymes*. Barrett, A.J. *et al*. (eds), p. 1905, Elsevier, London.
2. Ikehara, Y. *et al*. (1994) Methods Enzymol. **244**:215.
3. Marguet, D. *et al*. (1992) J. Biol. Chem. **267**:2200.
4. Bernard, A.M. *et al*. (1994) Biochemistry **33**:15204.
5. Vivier, I. *et al*. (1991) J. Immunol. **147**:447.
6. Callebaut, C. *et al*. (1993) Science **262**:2045.
7. Kameoka, J. *et al*. (1993) Science **261**:466.
8. Ohtsuki, T. *et al*. (1998) FEBS Lett. **431**:236.
9. Proost, P. *et al*. (1999) J. Biol. Chem. **274**:3988.
10. Hinke, S.A. *et al*. (2000) J. Biol. Chem. **275**:3827.
11. Wrenger, S. *et al*. (2000) FEBS Lett. **466**:155.

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Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
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