

#### DESCRIPTION

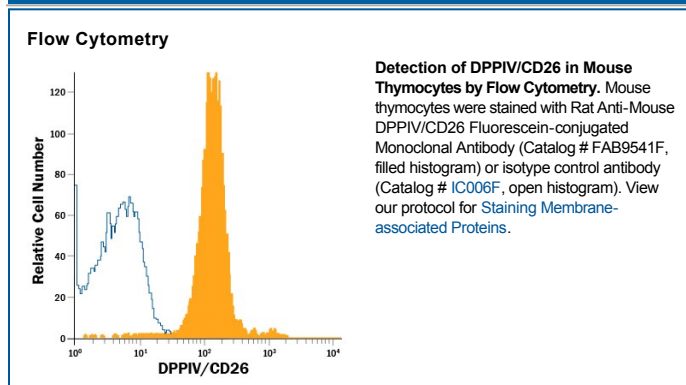
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse DPPIV/CD26 in direct ELISAs.
<b>Source</b>	Monoclonal Rat IgG <sub>2A</sub> Clone # 155202
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse DPPIV/CD26 Extracellular domain
<b>Conjugate</b>	Fluorescein Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm (FITC)
<b>Formulation</b>	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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	10 $\mu$ L/10 <sup>6</sup> cells	See Below

#### DATA



#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

**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<sup>+</sup> 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 1 $\alpha$  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.