

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse DPPIV/CD26 in direct ELISAs and Western blots. In direct ELISAs, less than 20% cross-reactivity with recombinant human DPPIV/CD26 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse DPPIV/CD26 Ser29-His760 Accession # P28843
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

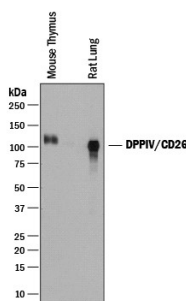
## APPLICATIONS

**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
<b>Western Blot</b>	.25 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below
<b>Simple Western</b>	5 µg/mL	See Below

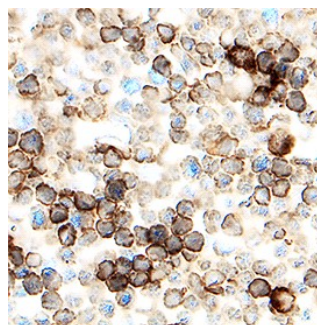
## DATA

### Western Blot



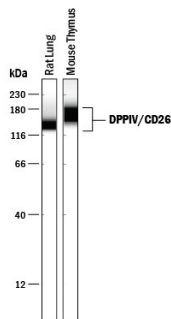
**Detection of Mouse and Rat DPPIV/CD26 by Western Blot.** Western blot shows lysates of mouse thymus tissue and rat lung tissue. PVDF membrane was probed with 0.25 µg/mL of Goat Anti-Mouse DPPIV/CD26 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF954) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for DPPIV/CD26 at approximately 100-110 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

### Immunohistochemistry



**DPPIV/CD26 in Mouse Thymus.** DPPIV/CD26 was detected in immersion fixed frozen sections of mouse thymus using Goat Anti-Mouse DPPIV/CD26 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF954) at 1.7 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to lymphocytes. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

### Simple Western



**Detection of Mouse and Rat DPPIV/CD26 by Simple Western™.** Simple Western lane view shows lysates of rat lung tissue and mouse thymus tissue, loaded at 0.2 mg/mL. A specific band was detected for DPPIV/CD26 at approximately 144-169 kDa (as indicated) using 5 µg/mL of Goat Anti-Mouse DPPIV/CD26 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF954) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</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:**

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