

DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human DPP9 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) DPPIV/CD26 or rhDPP10 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 757004
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human DPP9 Arg2-Leu892 (predicted) Accession # Q1ZZB8
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
Western Blot	1 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below
Simple Western	10 µg/mL	See Below

DATA

Western Blot

Detection of Human DPP9 by Western Blot. Western blot shows lysates of human liver tissue. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human DPP9 Monoclonal Antibody (Catalog # MAB5419) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for DPP9 at approximately 100 kDa (as indicated). This experiment was conducted under reducing conditions and using *Immunoblot Buffer Group 1*.

Immunocytochemistry

DPP9 in HeLa Human Cell Line. DPP9 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Mouse Anti-Human DPP9 Monoclonal Antibody (Catalog # MAB5419) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for *Fluorescent ICC Staining of Cells on Coverslips*.

Simple Western

Detection of Human DPP9 by Simple Western™. Simple Western lane view shows lysates of human liver tissue, loaded at 0.5 mg/mL. A specific band was detected for DPP9 at approximately 101 kDa (as indicated) using 10 µg/mL of Mouse Anti-Human DPP9 Monoclonal Antibody (Catalog # MAB5419). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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. <ul style="list-style-type: none"> • 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

DPP9 is a member of the S9b family of serine peptidases (1, 2). It shares 19% amino acid identity with DPP4 and 58% amino acid identity with DPP8. It exhibits post-proline dipeptidyl aminopeptidase activity, cleaving Xaa-Pro dipeptides from the N-terminus of oligo- and polypeptides (3). Unlike DPP4, DPP9 does not appear to be membrane bound and is localized exclusively in the cytoplasm (4). This family of proline-specific dipeptidyl peptidases has been implicated in a variety of diseases including type 2 diabetes, obesity and cancer, and has been a potential target for drug discovery (5, 6).

References:

1. Olsen, C. and Wagtmann, N. (2002) *Gene* **299**:185.
2. Qi, S.Y. *et al.* (2003) *Biochem. J.* **373**:179.
3. Bjelke, J.R. *et al.* (2006) *Biochem. J.* **396**:391.
4. Ajami, K. *et al.* (2004) *Biochim. Biophys. Acta.* **1679**:18.
5. Rosenblum, J.S. and Kozarich, J.W. *et al.* (2003) *Curr. Opin. Chem. Biol.* **7**:496.
6. Van der Veken, P. *et al.* (2007) *Curr. Top. Med. Chem.* **7**:621.