Revision 3

Store at -20C

#67138

DPP4/CD26 (D6D8K) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IF-IC	H	Endogenous	90, 120	Rabbit IgG	#P27487	1803

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Immunofluorescence (Immunocytochemistry)	1:100 - 1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

DPP4 (D6D8K) Rabbit mAb recognizes endogenous levels of total DPP4 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu491 of human DPP4 protein.

Background

DPP4 (CD26) is a type II transmembrane glycoprotein expressed ubiquitously in most tissues and different cell types (1,2). The protein has a short cytoplasmic domain, a transmembrane domain, a flexible stalk fragment, and an extracellular fragment (2). Both the catalytic peptide hydrolase domain and the beta-propeller ligand binding domain are located in the extracellular fragment (2). DPP4 is a multifunctional protein that exists in both a membrane-bound form as well as an extracellular soluble form. As a peptidase, it removes N-terminal dipeptides sequentially from proteins with a proline or alanine as the penultimate P1 amino acid (3,4). DPP4 has been shown to cleave a wide range of substrates, including GLP-1, BNP, substance P, etc. It is also involved in the regulation of related biological functions (5). In addition to its peptidase activity, DPP4 interacts with multiple important cell surface ligands, such as adenosine deaminase, fibronectin, and IGF2 receptor, to influence processes like T cell activation, cell migration, and proliferation (5). Several DPP4 inhibitors have been developed and their effects have been tested in the field of diabetes, cardiovascular disease, and tumor immunity (2,5,6).

This product detects a SARS-CoV-2-related target for research into the mechanisms of the Novel Coronavirus, which has caused the COVID-19 pandemic.

Background References

1. Mentzel, S. et al. (1996) *J Histochem Cytochem* 44, 445-61.
2. Röhrborn, D. et al. (2015) *Front Immunol* 6, 386.
3. Hopsu-Havu, V.K. and Glenner, G.G. (1966) *Histochemie* 7, 197-201.
4. Lone, A.M. et al. (2010) *AAPS J* 12, 483-91.
5. Zhong, J. et al. (2015) *J Diabetes Res* 2015, 606031.
6. Ohnuma, K. et al. (2015) *Nat Immunol* 16, 791-2.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

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