10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

DPP9 Rabbit pAb

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Catalog # AP58955

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q86TI2
Predicted	Rat, Dog, Human, Mouse, Chicken, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	98263
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human DPP9/DPRP2
Epitope Specificity	501-600/863
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm, cytosol.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Dipeptidyl peptidase that cleaves off N-terminal dipeptides from proteins having a Pro or Ala residue at position 2.Dipeptidyl peptidases (DPPs) mediate regulatory activity of their substrates and have been linked to a variety of diseases including type 2 diabetes, obesity and cancer. DPPs have post-proline dipeptidyl aminopeptidase activity, cleaving Xaa-Pro dipeptides from the N-termini of proteins. DPPs can bind specific voltage-gated potassium channels and alter their expression and biophysical properties and may also influence T cells. DPP proteins include DPRP1, DPRP2, DPP3, DPP7, DPP10, DPPX and CD26. DPRP2 (dipeptidyl-peptidase IV-related protein 2), also known as DPP9 (dipeptidyl-peptidase 9), or DP9, is a member of the peptidase S9B family of proteins that exhibit prolyl oligopeptidase activity. DPRP2 localizes to the cytoplasm and is ubiquitously expressed with predominant expression in heart, muscle and liver. DPRP2 may play an important role in the regulation of signaling by peptide hormones.

Additional Information

Gene ID	91039
Other Names	Dipeptidyl peptidase 9, DP9, 3.4.14.5, Dipeptidyl peptidase IV-related protein 2, DPRP-2, Dipeptidyl peptidase IX, DPP IX, Dipeptidyl peptidase-like protein 9, DPLP9, DPP9 {ECO:0000303|PubMed:12459266, ECO:0000312|HGNC:HGNC:18648}
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	DPP9 {ECO:0000303|PubMed:12459266, ECO:0000312|HGNC:HGNC:18648}
Function	Dipeptidyl peptidase that cleaves off N-terminal dipeptides from proteins having a Pro or Ala residue at position 2 (PubMed:12662155, PubMed:16475979, PubMed:19667070, PubMed:29382749, PubMed:30291141, PubMed:33731929, PubMed:36112693). Acts as a key inhibitor of caspase-1-dependent monocyte and macrophage pyroptosis in resting cells by preventing activation of NLRP1 and CARD8 (PubMed:27820798, PubMed:29967349, PubMed:30291141, PubMed:31525884, PubMed:32796818, PubMed:36112693, PubMed:36357533). Sequesters the cleaved C-terminal part of NLRP1 and CARD8, which respectively constitute the active part of the NLRP1 and CARD8 inflammasomes, in a ternary complex, thereby preventing their oligomerization and activation (PubMed:33731929, PubMed:33731932, PubMed:34019797). The dipeptidyl peptidase activity is required to suppress NLRP1 and CARD8; however, neither NLRP1 nor CARD8 are bona fide substrates of DPP9, suggesting the existence of substrate(s) required for NLRP1 and CARD8 inhibition (PubMed:33731929).
Cellular Location	[Isoform 1]: Cytoplasm, cytosol
Tissue Location	Ubiquitously expressed, with highest levels in liver, heart and muscle, and lowest levels in brain

Background

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.