

Basic Information

Catalog Number:	86199-3-PBS	GenBank Accession Number:	BC060837	Purification Method:
Concentration:	1000 µg/ml	GenID (NCBI):	1852	Protein A purification
Source:	Rabbit	UNIPROT ID:	Q99956	CloneNo.:
Isotype:	IgG	Full Name:	dual specificity phosphatase 9	250824B11
Immunogen Catalog Number:	AG25167	Calculated MW:	42 kDa	
		Observed MW:	42 kDa	

Applications

Tested Applications:

WB, Indirect ELISA

Species Specificity:

human

Background Information

Dual specificity protein phosphatase 9 (DUSP9) is also named itogen-activated protein kinase phosphatase 4 (MAP kinase phosphatase 4; MKP-4). DUSP9 is a typical DUSP characterized by the presence of an MKB/KIM motif and a phosphatase domain, which shares structural homology with other DUSPs (PMID: 25519881). DUSP9 is an important downstream regulator of BMP/Smad signaling and a key factor in maintaining the stemness of mESCs (PMID: 34768967). DUSP9 is one of the key genes involved in gonadotrophin-mediated ovarian follicle development (PMID: 33676987). DUSP9 expression increases during insulin-induced adipogenesis and culminates in mature adipocytes. DUSP9 as a key regulator of insulin signaling and highlighted its potential role in insulin resistance and metabolic diseases by dephosphorylating kinases involved in metabolic processes, glucose uptake and storage. DUSP9 can also impair the action of extracellular mediators and stress inducers (i.e., proinflammatory cytokines), which can induce insulin resistance by abnormally activating MAPK or SAP pathways (PMID: 30063256, PMID: 18296638). In normal mature tissues, DUSP9 is mainly expressed in kidney, adipose tissue and placenta, while it is only minimally present in brain, ovary, testis and urinary bladder (PMID: 34768967).

Storage

Storage:

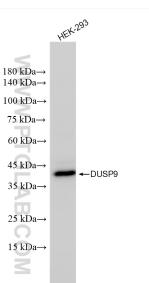
Store at -80°C.

The product is shipped with ice packs. Upon receipt, store it immediately at -80°C

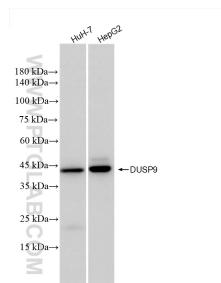
Storage Buffer:

PBS only, pH7.3

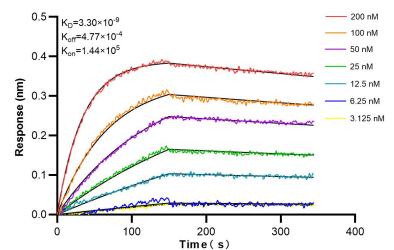
Selected Validation Data



HEK-293 cells were subjected to SDS PAGE followed by western blot with 86199-3-RR (DUSP9 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 86199-3-PBS in a different storage buffer formulation.



Various lysates were subjected to SDS PAGE followed by western blot with 86199-3-RR (DUSP9 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 86199-3-PBS in a different storage buffer formulation.



Biolayer interferometry (BLI) kinetic assays of 86199-3-RR against Human DUSP9 were performed. The affinity constant is 3.30 nM.