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

DUSP10 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8453a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9Y6W6
Other Accession	Q9ESS0, Q0IID7
Reactivity	Human, Mouse
Predicted	Bovine, Rat, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB5879
Calculated MW	52642
Antigen Region	1-30

Additional Information

Gene ID	11221
Other Names	Dual specificity protein phosphatase 10, Mitogen-activated protein kinase phosphatase 5, MAP kinase phosphatase 5, MKP-5, DUSP10, MKP5
Target/Specificity	This DUSP10 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human DUSP10.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	DUSP10 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DUSP10
Synonyms	MKP5

Function	Protein phosphatase involved in the inactivation of MAP kinases. Has a specificity for the MAPK11/MAPK12/MAPK13/MAPK14 subfamily. It preferably dephosphorylates p38.
Cellular Location	Cytoplasm. Nucleus.
Tissue Location	Expressed in keratinocytes (at protein level) (PubMed:29043977). Detected in brain (PubMed:16806267)

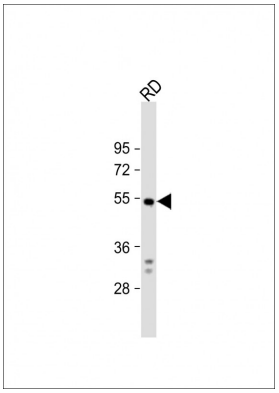
Background

Dual specificity protein phosphatases inactivate their target kinases by dephosphorylating both the phosphoserine/threonine and phosphotyrosine residues. They negatively regulate members of the MAPK superfamily (MAPK/ERK, SAPK/JNK, p38), which is associated with cellular proliferation and differentiation. Different members of this family of dual specificity phosphatases show distinct substrate specificities for MAPKs, different tissue distribution and subcellular localization, and different modes of inducibility of their expression by extracellular stimuli. DUSP10 binds to and inactivates p38 and SAPK/JNK, but not MAPK/ERK. Its subcellular localization is unique; it is evenly distributed in both the cytoplasm and the nucleus. The protein is widely expressed in various tissues and organs, and its expression is elevated by stress stimuli.

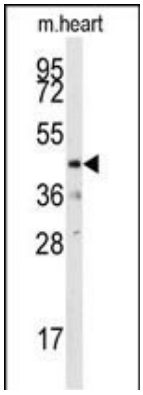
References

Tanoue, T., et al., J. Biol. Chem. 274(28):19949-19956 (1999).
Theodosiou, A., et al., Oncogene 18(50):6981-6988 (1999).
Martell, K.J., et al., Mol. Cells 8(1):2-11 (1998).
Masuda, K., et al., Cytogenet. Cell Genet. 90 (1-2), 71-74 (2000) (): ().

Images

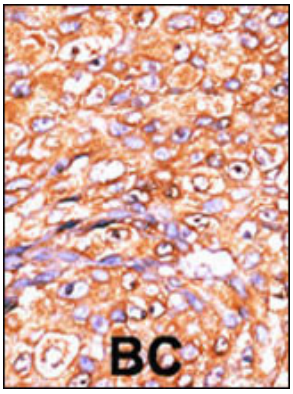


Anti-DUSP10 Antibody (N-term) at 1:1000 dilution + RD whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 53 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

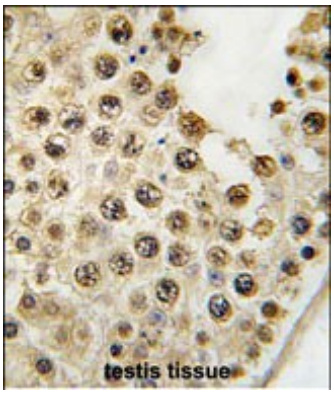


Western blot analysis of anti-DUSP10 Pab (Cat. #AP8453a) in mouse heart tissue lysates (35ug/lane). DUSP10(arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human cancer



tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Formalin-fixed and paraffin-embedded human testis tissue reacted with DUSP10 Antibody (N-term) (Cat.#AP8453a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

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