

Rabbit anti-Human MKP-1/DUSP1 Polyclonal Antibody | anti-DUSP1 antibody

Anti-MKP-1/DUSP1 Antibody

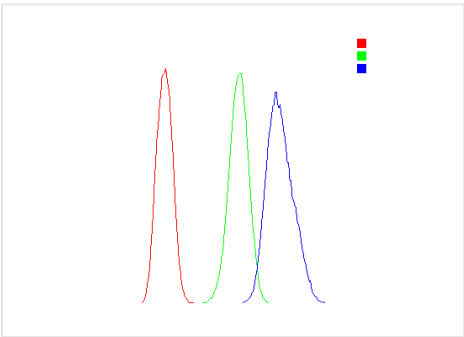
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125646	Rabbit	Human	Flow Cytometry, Functional Assay, Western Blot

PRODUCT SYNONYMS

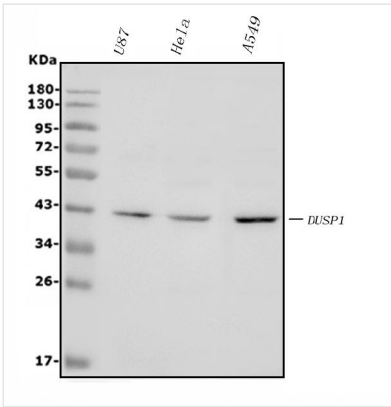
MKP-1/DUSP1; Polyclonal Antibody; Anti-MKP-1/DUSP1 Antibody; DUSP1; CL100; MKP1; PTPN10; VH1; Dual specificity protein phosphatase 1; Dual specificity protein phosphatase hVH1; Mitogen-activated protein kinase phosphatase 1; MAP kinase phosphatase 1; MKP-1; Protein-tyrosine phosphatase CL100; dual specificity phosphatase 1; anti-DUSP1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for MKP-1/DUSP1 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Applicable Applications for anti-DUSP1 antibody	FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	A synthetic peptide corresponding to a sequence of human MKP-1/DUSP1 (NAELRGRLLAGAYHAVVLLDERSAALD).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



FCM/FACS (Flow Cytometry)
Figure 2. Flow Cytometry analysis of CACO-2 cells using anti-MKP-1/DUSP1 antibody (AAA125646). Overlay histogram showing CACO-2 cells stained with AAA125646 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MKP-1/DUSP1 Antibody (AAA125646, 1µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)
Figure 1. Western blot analysis of MKP-1/DUSP1 using anti-MKP-1/DUSP1 antibody (AAA125646). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human U87 whole cell lysates. Lane 2: human HELA whole cell lysates. Lane 3: human A549 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MKP-1/DUSP1 antigen affinity purified polyclonal antibody (Catalog # AAA125646) at 0.5 µg/mL overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for MKP-1/DUSP1 at approximately 40KD. The expected band size for MKP-1/DUSP1 is at 40KD.

ADDITIONAL INFORMATION

Related Product Information for anti-DUSP1 antibody	Dual specificity protein phosphatase 1 is an enzyme that in humans is encoded by the DUSP1 gene. The protein encoded by this gene is a phosphatase with dual specificity for tyrosine and threonine. The encoded protein can dephosphorylate MAP kinase MAPK1/ERK2, which results in its involvement in several cellular processes. This protein appears to play an important role in the human cellular response to environmental stress as well as in the negative regulation of cellular proliferation. Finally, the encoded protein can make some solid tumors resistant to both chemotherapy and radiotherapy, making it a target for cancer therapy.
References	1. Alessi, D. R., Smythe, C., Keyse, S. M. The human CL100 gene encodes a tyr/thr-protein phosphatase which potently and specifically inactivates MAP kinase and suppresses its activation by oncogenic ras in Xenopus oocyte extracts. <i>Oncogene</i> 8: 2015-2020, 1993. 2. Bhalla, U. S., Ram, P. T., Iyengar, R. MAP kinase phosphatase as a locus of flexibility in a mitogen-activated protein kinase signaling network. <i>Science</i> 297: 1018-1023, 2002. 3. Brondello, J. -M., Pouyssegur, J., McKenzie, F. R. Reduced MAP kinase phosphatase-1 degradation after p42/p44(MAPK)-dependent phosphorylation. <i>Science</i> 286: 2514-2517, 1999.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4758204
NCBI GeneID	1843
NCBI Accession #	NP_004408.1
NCBI GenBank Nucleotide #	NM_004417.3
UniProt Accession #	P28562; Q2V508; D3DQL9
Molecular Weight	39,298 Da
NCBI Official Full Name	dual specificity protein phosphatase 1
NCBI Official Synonym Full Names	dual specificity phosphatase 1

NCBI Official Symbol	DUSP1
NCBI Official Synonym Symbols	HVH1; MKP1; CL100; MKP-1; PTPN10
NCBI Protein Information	dual specificity protein phosphatase 1; MAP kinase phosphatase 1; protein-tyrosine phosphatase CL100; dual specificity protein phosphatase hVH1; serine/threonine specific protein phosphatase; mitogen-activated protein kinase phosphatase 1
UniProt Protein Name	Dual specificity protein phosphatase 1
UniProt Gene Name	DUSP1
UniProt Synonym Gene Names	CL100; MKP1; PTPN10; VH1; MAP kinase phosphatase 1; MKP-1
UniProt Entry Name	DUS1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/mkp-1-dusp1-antibody-flow-cytometry-western-blot-elisa/125646>