

Anti-DUSP3 Antibody

Catalog # ABO11071

### Specification

## Anti-DUSP3 Antibody - Product Information

ApplicationWBPrimary AccessionP51452HostRabbitReactivityHuman, Mouse, RatClonalityPolyclonalFormatLyophilizedDescriptionRabbit IgG polyclonal antibody for Dual specificity protein phosphatase 3(DUSP3) detection. Testedwith WB in Human; Mouse; Rat.

**Reconstitution** Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

### Anti-DUSP3 Antibody - Additional Information

Gene ID 1845

**Other Names** Dual specificity protein phosphatase 3, 3.1.3.16, 3.1.3.48, Dual specificity protein phosphatase VHR, Vaccinia H1-related phosphatase, VHR, DUSP3, VHR

Calculated MW 20478 MW KDa

**Application Details** Western blot, 0.1-0.5 μg/ml, Human, Rat, Mouse<br>

**Subcellular Localization** Nucleus .

**Protein Name** Dual specificity protein phosphatase 3

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human DUSP3(155-171aa RQNREIGPNDGFLAQLC), identical to the related rat and mouse sequences.

**Purification** Immunogen affinity purified.

**Cross Reactivity** 



No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

**Sequence Similarities** 

Belongs to the protein-tyrosine phosphatase family. Non-receptor class dual specificity subfamily.

#### **Anti-DUSP3 Antibody - Protein Information**

Name DUSP3

Synonyms VHR

Function

Shows activity both for tyrosine-protein phosphate and serine-protein phosphate, but displays a strong preference toward phosphotyrosines (PubMed:<a href="http://www.uniprot.org/citations/10224087" target="\_blank">10224087</a>, PubMed:<a href="http://www.uniprot.org/citations/11863439" target="\_blank">11863439</a>). Specifically dephosphorylates and inactivates ERK1 and ERK2 (PubMed:<a href="http://www.uniprot.org/citations/10224087" target="\_blank">10224087</a>, PubMed:<a href="http://www.uniprot.org/citations/11863439" target="\_blank">10224087</a>, PubMed:<a href="http://www.uniprot.org/citations/10224087" target="\_blank">10224087</a>, PubMed:<a href="http://www.uniprot.org/citations/10224087" target="\_blank">10224087</a>, PubMed:<a href="http://www.uniprot.org/citations/10224087" target="\_blank">10224087</a>, PubMed:<a href="http://www.uniprot.org/citations/11863439" target="\_blank">11863439</a>, PubMed:<a href="http://www.uniprot.org/citations/11863439" target="\_blank">11863439</a>, PubMed:<a href="http://www.uniprot.org/citations/11863439" target="\_blank">10224087</a>, PubMed:<a href="http://www.uniprot.org/citations/11863439" target="\_blank">11863439</a>, PubMed:<a href="http://www.uniprot.org/citations/11863439" target

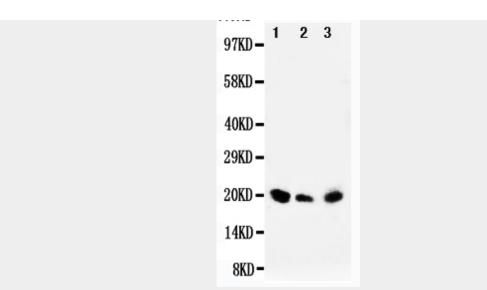
**Cellular Location** Nucleus. Cytoplasm, cytoskeleton, flagellum axoneme {ECO:0000250|UniProtKB:Q9D7X3}

#### Anti-DUSP3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- <u>Flow Cytomety</u>
- <u>Cell Culture</u>

Anti-DUSP3 Antibody - Images



Anti-DUSP3 antibody, ABO11071, Western blottingLane 1: Rat Testis Tissue Lysate Lane 2: SKOV Cell Lysate Lane 3: MM453 Cell Lysate

# Anti-DUSP3 Antibody - Background

DUSP3(Dual-specificity phosphatase 3), also called VHR, is a member of the dual specificity protein phosphatase subfamily. DUSPs constitute a large heterogeneous subgroup of the type I cysteine-based protein-tyrosine phosphatase superfamily. DUSPs are characterized by their ability to dephosphorylate both tyrosine and serine/threonine residues. DUSP3 contains the consensus DUSP C-terminal catalytic domain but lacks the N-terminal CH2 domain found in the MKP(mitogen-activated protein kinase phosphatase) class of DUSPs. The DUSP3 gene is mapped on 17q21.31. Confocal microscopy demonstrated that phosphorylated VHR accumulated at the immune synapse between the T cell and the antigen-presenting cell in the presence of antigen. Tyrosine phosphorylation of VHR affects protein-protein interaction, subcellular location, or substrate targeting, given that tyr138 is located on the opposite side of the VHR catalytic center.