

**Anti-DUSP3 Antibody**  
Catalog # ABO11071**Specification**

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**Anti-DUSP3 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P51452</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Dual specificity protein phosphatase 3(DUSP3) detection. Tested with 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 Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**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 reconstitution, 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: [10224087](http://www.uniprot.org/citations/10224087), PubMed: [11863439](http://www.uniprot.org/citations/11863439)). Specifically dephosphorylates and inactivates ERK1 and ERK2 (PubMed: [10224087](http://www.uniprot.org/citations/10224087), PubMed: [11863439](http://www.uniprot.org/citations/11863439)).

#### Cellular Location

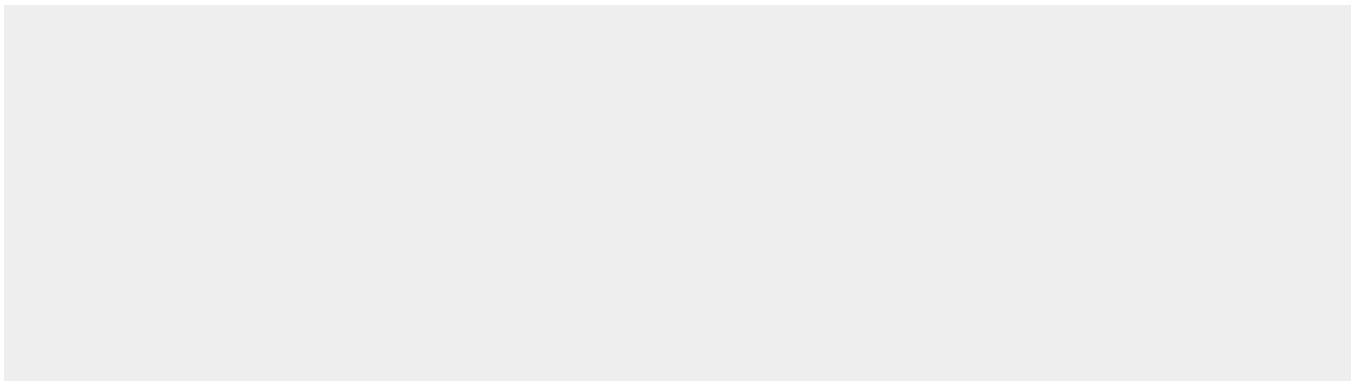
Nucleus. Cytoplasm, cytoskeleton, flagellum axoneme {ECO:0000250|UniProtKB:Q9D7X3}

### Anti-DUSP3 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-DUSP3 Antibody - Images





Anti-DUSP3 antibody, ABO11071, Western blotting Lane 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.