

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat VHR in Western blots.
Source	Monoclonal Mouse IgG _{2A} Clone # 237020
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human VHR Ser2-Pro185 Accession # P51452
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Vaccinia Virus VH1-related Phosphatase (VHR), also known as Dual-Specificity Phosphatase 3 (DUSP3), removes inorganic phosphate groups covalently attached to tyrosine, serine and threonine residues in proteins (1). It belongs to a family of phosphatases that selectively dephosphorylate MAP kinases. VHR has been shown to dephosphorylate cellular ERK1, ERK2 and JNK, but not p38 (2, 3). Phosphorylation of VHR at tyrosine 138 by ZAP-70 enhances inhibition of ERK2, suggesting a role for VHR in modulating T-cell receptor responses (3). The enzymatic mechanism for VHR has been studied in detail (4) and its X-ray crystal structure has been characterized (5). Its well-defined biochemistry has made it useful in screening assays for compounds that inhibit phosphatases (6).

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