

#3307 Store at -20C

VRK1 (1F6) Mouse mAb



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	48	Mouse IgG1	#Q99986	7443

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

VRK1 (1F6) Mouse mAb detects endogenous levels of total VRK1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant fusion protein GST-full length human VRK1.

Background

The vaccinia-related kinase (VRK) proteins are a new group of Ser/Thr kinases in the human kinome. This mammalian kinase family comprises three members, VRK1, VRK2, and VRK3 (1-3). The VRK1 has autophosphorylation activity and phosphorylates several transcription factors, including p53 (4), ATF2 (5), and c-Jun (6). VRK2 is associated with the endoplasmic reticulum (7). VRK3 suppresses Erk activity through direct interaction and activation of the MAP kinase phosphatase VHR (8). Further functional and structural analysis of VRK proteins will elucidate important new aspects of cell regulation.

Background References

1. Nezu, J. et al. (1997) *Genomics* 45, 327-31.
2. Zelko, I. et al. (1998) *Arch Biochem Biophys* 352, 31-6.
3. Vega, F.M. et al. (2003) *FEBS Lett* 544, 176-80.
4. Lopez-Borges, S. and Lazo, P.A. (2000) *Oncogene* 19, 3656-64.
5. Sevilla, A. et al. (2004) *J Biol Chem* 279, 27458-65.
6. Sevilla, A. et al. (2004) *Oncogene* 23, 8950-8.
7. Nichols, R.J. and Traktman, P. (2004) *J Biol Chem* 279, 7934-46.
8. Kang, T.H. and Kim, K.T. (2006) *Nat Cell Biol* 8, 863-9.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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