10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

VRK1 Antibody (Center)(Ascites)
Mouse Monoclonal Antibody (Mab)
Catalog # AM2226a

Specification

VRK1 Antibody (Center)(Ascites) - Product Information

Application	**WB,E**
Primary Accession	Q99986
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**45476**

VRK1 Antibody (Center)(Ascites) - Additional Information

Gene ID 7443

Other Names
Serine/threonine-protein kinase VRK1, Vaccinia-related kinase 1, VRK1

Target/Specificity
Purified His-tagged VRK1 protein was used to produced this monoclonal antibody.

Dilution
WB~~1:5000

Format
Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
VRK1 Antibody (Center)(Ascites) is for research use only and not for use in diagnostic or therapeutic procedures.

VRK1 Antibody (Center)(Ascites) - Protein Information

Name VRK1 {ECO:0000303|PubMed:9344656, ECO:0000312|HGNC:HGNC:12718}

Function Serine/threonine kinase involved in cell cycle, nuclear condensation and transcription regulation (PubMed:14645249, PubMed:18617507, PubMed:19103756). Involved in Golgi disassembly during the cell cycle: following phosphorylation by PLK3 during mitosis, required to induce Golgi fragmentation (PubMed:19103756). Phosphorylates 'Thr-18' of p53/TP53 and may thereby prevent the interaction between p53/TP53 and MDM2 (PubMed:10951572). Phosphorylates KAT5 in response to DNA damage, promoting KAT5 association with chromatin and

histone acetyltransferase activity (PubMed:33076429). Phosphorylates BANF1: disrupts its ability to bind DNA, reduces its binding to LEM domain-containing proteins and causes its relocalization from the nucleus to the cytoplasm (PubMed:16495336). Phosphorylates ATF2 which activates its transcriptional activity (PubMed:15105425).

Cellular Location
Nucleus. Cytoplasm. Note=Dispersed throughout the cell but not located on mitotic spindle or chromatids during mitosis

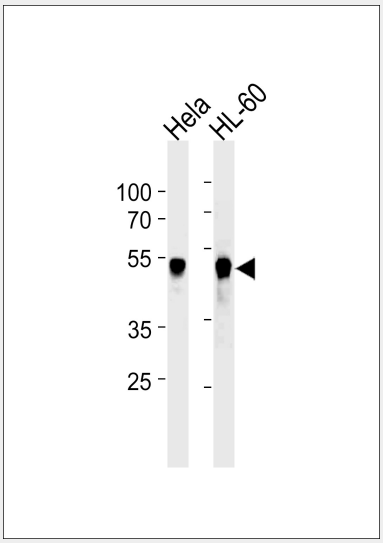
Tissue Location
Widely expressed. Highly expressed in fetal liver, testis and thymus.

VRK1 Antibody (Center)(Ascites) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

VRK1 Antibody (Center)(Ascites) - Images



VRK1 Antibody (Center)(Cat. #AM2226a) western blot analysis in Hela,HL-60 cell line lysates (35µg/lane).This demonstrates the VRK1 antibody detected the VRK1 protein (arrow).

VRK1 Antibody (Center)(Ascites) - Background

Serine/threonine kinase involved in Golgi disassembly during the cell cycle: following phosphorylation by PLK3 during mitosis, required to induce Golgi fragmentation. Acts by mediating phosphorylation of downstream target protein. Phosphorylates 'Thr-18' of p53/TP53 and may thereby prevent the interaction between p53/TP53 and MDM2. Phosphorylates casein and histone H3. Phosphorylates BANF1: disrupts its ability to bind DNA, reduces its binding to LEM

domain-containing proteins and causes its relocalization from the nucleus to the cytoplasm.

VRK1 Antibody (Center)(Ascites) - References

Nezu J., et al. Genomics 45:327-331(1997).
Lopez-Borges S., et al. Oncogene 19:3656-3664(2000).
Barcia R., et al. Arch. Biochem. Biophys. 399:1-5(2002).
Nichols R.J., et al. J. Biol. Chem. 279:7934-7946(2004).
Blanco S., et al. FEBS J. 273:2487-2504(2006).