

Product Name: KD-Validated VRK1 Mouse Monoclonal Antibody**Catalog #: KVA00278**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Mouse
Application	WB,FCM,ICC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG1
Clonality	Mouse mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2,500; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 45.5kDa

Antigen Information

Gene Name	VRK1 VRK1; VRK Serine/Threonine Kinase 1; Serine/Threonine-Protein Kinase VRK1; Vaccinia
Alternative Names	Related Kinase 1; EC 2.7.11.1; Vaccinia Virus B1R-Related Kinase 1; Vaccinia-Related Kinase 1; HMNR10; PCH1A; PCH1
Gene ID	7443.0
SwissProt ID	Q99986
Immunogen	Recombinant protein of human VRK1

Background

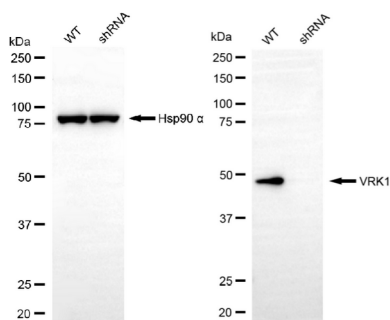
This gene encodes a member of the vaccinia-related kinase (VRK) family of serine/threonine protein kinases. This gene is widely expressed in human tissues and has increased expression in actively dividing cells, such as those in testis, thymus, fetal liver, and

carcinomas. Its protein localizes to the nucleus and has been shown to promote the stability and nuclear accumulation of a transcriptionally active p53 molecule and, in vitro, to phosphorylate Thr18 of p53 and reduce p53 ubiquitination. This gene, therefore, may regulate cell proliferation. This protein also phosphorylates histone, casein, and the transcription factors ATF2 (activating transcription factor 2) and c-JUN. [provided by RefSeq, Jul 2008]

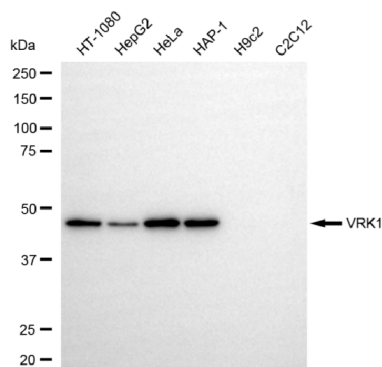
Research Area

Cell Biology,Signal Transduction,Epigenetics and Nuclear Signaling

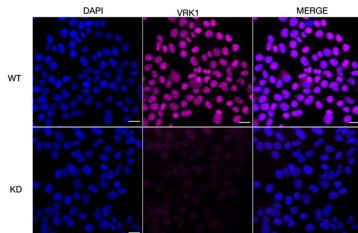
Image Data



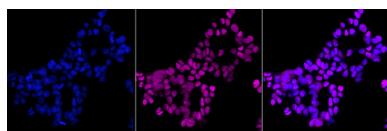
Western blotting analysis using VRK1 antibody (KVA00278). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with VRK1 antibody (KVA00278, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.

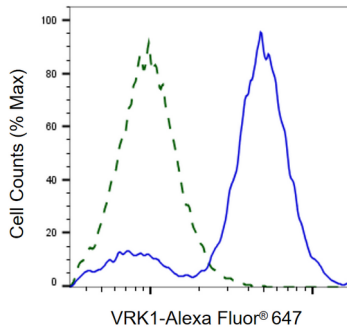


Immunocytochemical staining of HeLa cells using VRK1 antibody (KVA00278, 1:1,000). Top panel: wild-type (WT); Bottom panel: VRK1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; VRK1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.

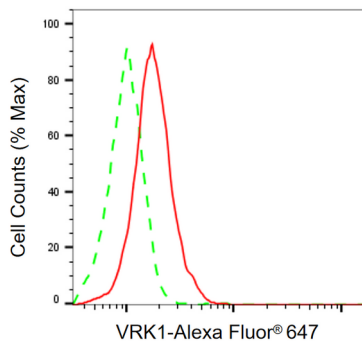


Immunocytochemical staining of HAP-1 cells with VRK1 antibody (KVA00278, 1:1,000). Nuclei were stained blue with DAPI; VRK1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser intensity and smart gain: Medium. Scale bar, 20 µm.





Validation of VRK1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with VRK1 antibody (KVA00278, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of VRK1 expression in HAP-1 cells using VRK1 antibody (KVA00278, 1:2,000). Green, isotype control; red, VRK1.