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

VRK2 Rabbit pAb

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Catalog # AP54966

Product Information

Application	WB
Primary Accession	Q86Y07
Reactivity	Mouse
Predicted	Human, Rat, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	58141
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human VRK2
Epitope Specificity	151-250/508
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane.
SIMILARITY	Belongs to the protein kinase superfamily. CK1 Ser/Thr protein kinase family. VRK subfamily. Contains 1 protein kinase domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the vaccinia-related kinase (VRK) family of serine/threonine protein kinases. The encoded protein acts as an effector of signaling pathways that regulate apoptosis and tumor cell growth. Variants in this gene have been associated with schizophrenia. Alternative splicing results in multiple transcript variants that differ in their subcellular localization and biological activity. [provided by RefSeq, Jan 2014]

Additional Information

Gene ID	7444
Other Names	Serine/threonine-protein kinase VRK2, 2.7.11.1, Vaccinia-related kinase 2, VRK2
Target/Specificity	Widely expressed. Highly expressed in fetal liver, skeletal muscle, pancreas, heart, peripheral blood leukocytes and testis.
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

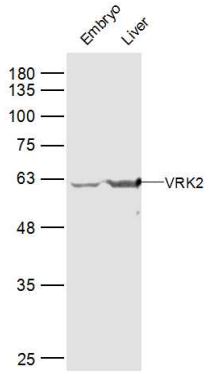
Protein Information

Name	VRK2
Function	Serine/threonine kinase that regulates several signal transduction pathways (PubMed:14645249, PubMed:16495336, PubMed:16704422, PubMed:17709393, PubMed:18286207, PubMed:18617507, PubMed:20679487). Isoform 1 modulates the stress response to hypoxia and cytokines, such as interleukin-1 beta (IL1B) and this is dependent on its interaction with MAPK8IP1, which assembles mitogen-activated protein kinase (MAPK) complexes (PubMed:17709393). Inhibition of signal transmission mediated by the assembly of MAPK8IP1-MAPK complexes reduces JNK phosphorylation and JUN-dependent transcription (PubMed:18286207). Phosphorylates 'Thr-18' of p53/TP53, histone H3, and may also phosphorylate MAPK8IP1 (PubMed:16704422). Phosphorylates BANF1 and disrupts its ability to bind DNA and reduces its binding to LEM domain-containing proteins (PubMed:16495336). Down-regulates the transactivation of transcription induced by ERBB2, HRAS, BRAF, and MEK1 (PubMed:20679487). Blocks the phosphorylation of ERK in response to ERBB2 and HRAS (PubMed:20679487). Can also phosphorylate the following substrates that are commonly used to establish in vitro kinase activity: casein, MBP and histone H2B, but it is not sure that this is physiologically relevant (PubMed:14645249).
Cellular Location	[Isoform 1]: Cytoplasm. Endoplasmic reticulum membrane; Single-pass type IV membrane protein. Mitochondrion membrane; Single-pass type IV membrane protein. Nucleus envelope {ECO:0000250|UniProtKB:Q8BN21}
Tissue Location	Isoform 1 and isoform 2 are expressed in various tumor cell lines. Expression of isoform 1 inversely correlates with ERBB2 in breast carcinomas (at protein level). Widely expressed. Highly expressed in fetal liver, skeletal muscle, pancreas, heart, peripheral blood leukocytes and testis.

Background

This gene encodes a member of the vaccinia-related kinase (VRK) family of serine/threonine protein kinases. The encoded protein acts as an effector of signaling pathways that regulate apoptosis and tumor cell growth. Variants in this gene have been associated with schizophrenia. Alternative splicing results in multiple transcript variants that differ in their subcellular localization and biological activity. [provided by RefSeq, Jan 2014]

Images



Sample:
Embryo (Mouse) Lysate at 40 ug
Liver (Mouse) Lysate at 40 ug
Primary: Anti-VRK2 (AP54966) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 58 kD
Observed band size: 58 kD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.