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VRK3 Polyclonal Antibody
Catalog # AP73076

Specification

VRK3 Polyclonal Antibody - Product Information

Application	**WB**
Primary Accession	Q8IV63
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**

VRK3 Polyclonal Antibody - Additional Information

Gene ID 51231

Other Names
VRK3; Inactive serine/threonine-protein kinase VRK3; Serine/threonine-protein pseudokinase VRK3; Vaccinia-related kinase 3

Dilution
WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/40000. Not yet tested in other applications.

Format
Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions
-20℃

VRK3 Polyclonal Antibody - Protein Information

Name VRK3

Function
Plays a role in the regulation of the cell cycle by phosphorylating the nuclear envelope protein barrier-to-autointegration factor/BAF that is required for disassembly and reassembly, respectively, of the nuclear envelope during mitosis (PubMed:25899223). Under normal physiological conditions, negatively regulates ERK activity along with VHR/DUSP3 phosphatase in the nucleus, causing timely and transient action of ERK. Stress conditions activate CDK5 which phosphorylates VRK3 to increase VHR phosphatase activity and suppress prolonged ERK activation that causes cell death (PubMed:27346674). For example, upon glutamate induction, promotes nuclear localization of HSP70/HSPA1A to inhibit ERK activation via VHR/DUSP3 phosphatase (PubMed:27941812).

Cellular Location
Nucleus. Cytoplasm. Note=Under oxidative stress, migrates from the nucleus to the cytoplasm.

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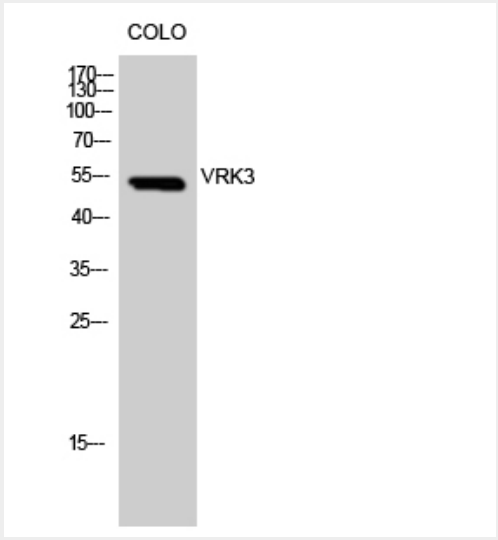
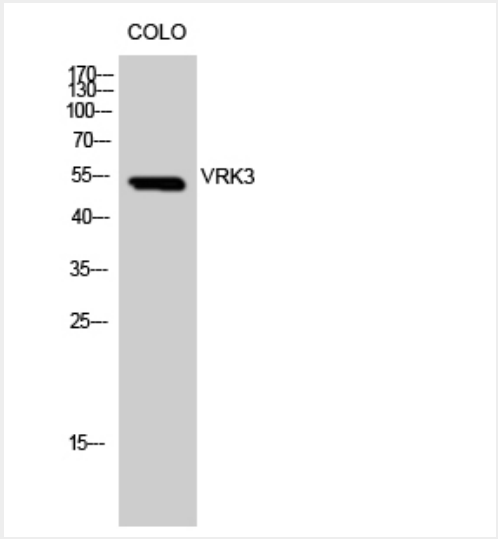
VRK3 Polyclonal Antibody - Protocols

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

VRK3 Polyclonal Antibody - Images





VRK3 Polyclonal Antibody - Background

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Inactive kinase that suppresses ERK activity by promoting phosphatase activity of DUSP3 which specifically dephosphorylates and inactivates ERK in the nucleus.