

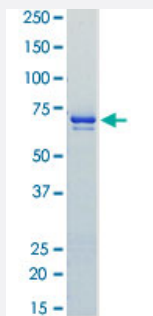
Bioactive

Full-Length

# VRK1 (Human) Recombinant Protein

Catalog # P5776      Size 5 ug

## Applications



## Result of activity analysis

Result of activity analysis

□

## Specification

<b>Product Description</b>	Human VRK1 (NP_003375.1, 1 a.a. - 396 a.a.) full length recombinant protein with GST tag expressed in <i>Escherichia coli</i> .
<b>Host</b>	<i>Escherichia coli</i>
<b>Theoretical MW (kDa)</b>	72
<b>Form</b>	Liquid
<b>Preparation Method</b>	<i>Escherichia coli</i> expression system
<b>Purification</b>	Glutathione sepharose chromatography
<b>Purity</b>	84 % by SDS-PAGE/CBB staining

<b>Activity</b>	The activity was determined by ELISA. The enzyme was incubated with biotinylated peptide in strept avidin-coated ELISA plate. Phosphorylation was detected by HRP-labeled anti-phospho antibody. Substrate : ATF2. ATP: 100 µM.
<b>Quality Control Testing</b>	SDS-PAGE Stained with Coomassie Blue
<b>Storage Buffer</b>	In 50 mM Tris-HCl, 150 mM NaCl, pH 7.5 (0.05% Brij35, 1 mM DTT, 10% glycerol)
<b>Storage Instruction</b>	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
<b>Note</b>	Result of activity analysis Result of activity analysis

## Applications

- Functional Study
- SDS-PAGE

## Gene Info — VRK1

<b>Entrez GeneID</b>	<a href="#">7443</a>
<b>Protein Accession#</b>	<a href="#">NP_003375.1</a>
<b>Gene Name</b>	VRK1
<b>Gene Alias</b>	MGC117401, MGC138280, MGC142070
<b>Gene Description</b>	vaccinia related kinase 1
<b>Omim ID</b>	<a href="#">602168</a>
<b>Gene Ontology</b>	<a href="#">Hyperlink</a>
<b>Gene Summary</b>	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]
<b>Other Designations</b>	vaccinia virus B1R-related kinase 1 vaccinia-related kinase-1

## Publication Reference

- [Dissecting the roles of Haspin and VRK1 in histone H3 phosphorylation during mitosis.](#)

Tyrell N Cartwright, Rebecca J Harris, Stephanie K Meyer, Aye M Mon, Nikolaus A Watson, Cheryl Tan, Agathe Marcelot, Fangwei Wang, Sophie Zinn-Justin, Paula Traktman, Jonathan M G Higgins.

Scientific Reports 2022 Jul; 12(1):11210.

Application: KA, Human, HeLa cells