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# Recombinant Human HIPK3/DYRK6 Kinase

Catalog No.: RP03440LQ Recombinant

# **Sequence Information**

Species Gene ID Swiss Prot Human 10114 09H422

Tags N-GST

**Synonyms** 

HIPK3; DYRK6; FIST3; PKY; ANPK; Androgen receptor-interacting nuclear protein kinase; FIST; Fas-interacting serine/threonine-protein kinase; Homolog of protein kinase YAK1; Homeodomain-interacting protein kinase

### **Product Information**

### Source Purification

Baculovirus-Insect ≥ 85% as Cells determine

≥ 85% as determined by SDS-PAGE;≥ 85% as determined by HPLC.

## Calculated MW Observed MW

72.5 kDa 60-75 kDa

#### Endotoxin

< 1 EU/µg of the protein by LAL method.

#### **Formulation**

Supplied as a 0.22  $\mu$ m filtered solution in 50 mM Tris-HCl, 500 mM NaCl, 5% glycerol, 5 mM DTT, 0.1 M Trehalose. (pH 7.5). Contact us for customized product form or formulation.

#### Reconstitution

Please use running water to thaw it quickly.

# Contact

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## **Background**

Homeodomain-interacting protein kinase 3 is an enzyme that in humans is encoded by the HIPK3 gene. The HIPK family, comprising four members (HIPK1-4), exhibits distinct characteristics, with HIPK3 sharing around 87 % identity with HIPK1 and HIPK2 in the kinase domain. A study found that the expression levels of HIPK3 mRNA and protein were significantly down-regulated in human non-small cell lung cancer (NSCLC) tissues, and HIPK3 silencing promoted the invasion and metastasis of NSCLC. Thus, HIPK3 may be a valuable biomarker for predicting the prognosis of patients with non-small cell lung cancer. In addition, HIPK3 may also be a novel kinase regulator of autophagy in Huntington disease (HD) cells, contributing to the accumulation of proteins and disease progression. Targeting HIPK3 may provide drug discovery opportunities for the treatment of HD and similar diseases.

# **Basic Information**

### Description

Recombinant Human HIPK3/DYRK6 Kinase is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Pro161-Asn562) of Human HIPK3 (Accession #Q9H422) fused with a N-GST tag.

### **Bio-Activity**

The activity of HIPK3 is based on the MSA technology, and the content and ratio of the substrate and the product are directly separated and detected in real time and dynamically by the different migration rates of the substrate and the product after the enzymatic reaction.

### **Storage**

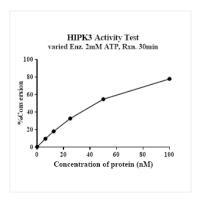
Store at  $-70^{\circ}$ C. This product is stable at  $\leq -70^{\circ}$ C for up to 1 year from the date of receipt. For optimal storage, aliquot into smaller quantities after centrifugation and store at recommended temperature.

Aliquots below 10  $\mu\text{L}$  are not advisable. Product must not be stored in diluted solutions. Avoid repeated freeze-thaw cycles.

Avoid repeated freeze/thaw cycles.



Recombinant Human HIPK3/DYRK6 Kinase was resolved with SDS-PAGE under reducing (Lane 1) and non-reducing (Lane 2) conditions.



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