# abcam

## Product datasheet

## Recombinant mouse HIPK2 protein ab125553

## 2 Images

**Description** 

Product name Recombinant mouse HIPK2 protein

**Biological activity** The specific activity was determined to be 110 nmol/min/mg.

**Purity** > 95 % Densitometry.

Expression system Baculovirus infected Sf9 cells

Accession Q9QZR5

Protein length Protein fragment

Animal free No

Nature Recombinant

**Species** Mouse

Predicted molecular weight 72 kDa including tags

Amino acids 153 to 564

#### **Specifications**

Our Abpromise guarantee covers the use of ab125553 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** Western blot

**Functional Studies** 

SDS-PAGE

Form Liquid

Additional notes <u>ab64311</u> (Myelin Basic Protein protein) can be utilized as a substrate for assessing kinase

activity

## **Preparation and Storage**

**Stability and Storage** Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 7.5

Constituents: 0.31% Glutathione, 0.002% PMSF, 0.004% DTT, 0.79% Tris HCl, 0.003% EDTA,

25% Glycerol (glycerin, glycerine), 0.88% Sodium chloride

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#### **General Info**

#### **Function**

Protein kinase acting as a corepressor of several transcription factors, including SMAD1 and POU4F1/Brn3a and probably NK homeodomain transcription factors. Inhibits cell growth and promotes apoptosis. Involved in transcriptional activation of TP53 and TP73. Phosphorylation of TP53 may be mediated by a TP53-HIPK2-AXIN1 complex. In response to TGFB, cooperates with DAXX to activate JNK. Phosphorylates the antiapoptotic factor CTBP1 and promotes its proteasomal degradation. In the Wnt/beta-catenin signaling pathway acts as an intermediate kinase between TAK1 and NLK to promote the proteasomal degradation of MYB (By similarity). Phosphorylates CBX4 upon DNA damage and promotes its E3 SUMO-protein ligase activity. PML, HIPK2 and FBXO3 may act synergically to activate p53/TP53-dependent transactivation.

Tissue specificity

Highly expressed in heart, muscle and kidney. Weakly expressed in a ubiquitous way. Down-regulated in several thyroid and breast tumors.

Sequence similarities

Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. HIPK subfamily.

Contains 1 protein kinase domain.

Post-translational modifications

Phosphorylated on tyrosines (By similarity). Autophosphorylated.

Sumoylated. When conjugated it is directed to nuclear speckles. Desumoylated by SENP1 (By similarity). Sumoylation on Lys-32 is promoted by the E3 SUMO-protein ligase CBX4.

Ubiquitinated by FBXO3, leading to rapid proteasome-dependent degradation. This degradation,

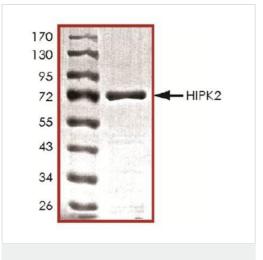
but not ubiquitination, is prevented in the presence of PML.

**Cellular localization** 

Nucleus > PML body. Cytoplasm. Concentrated in PML/POD/ND10 nuclear bodies. Small

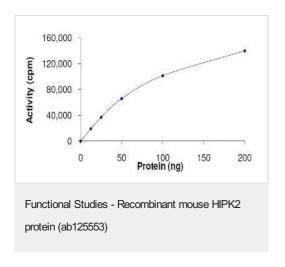
amounts are cytoplasmic.

## **Images**



SDS-PAGE - Recombinant mouse HIPK2 protein (ab125553)

ab125553 by SDS-PAGE



Kinase activity of ab125553.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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