

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	ab64311 (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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This product is an active protein and may elicit a biological response in vivo, handle with caution.

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.

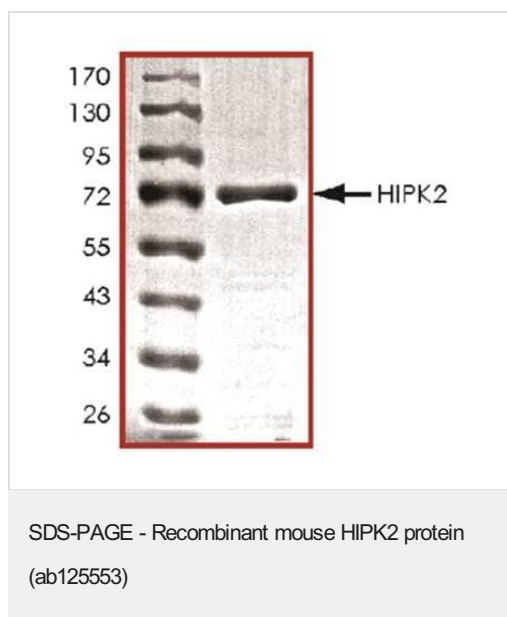
Post-translational modifications

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.

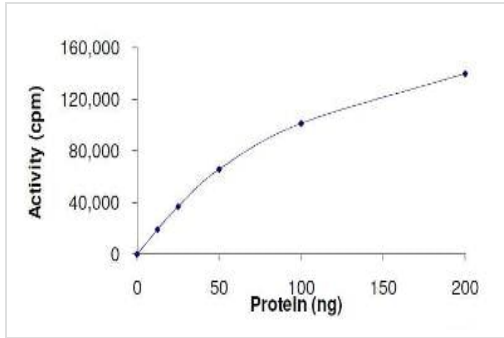
Cellular localization

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

Images



ab125553 by SDS-PAGE



Kinase activity of ab125553.

Functional Studies - Recombinant mouse HIPK2 protein (ab125553)

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

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