

Product datasheet

Recombinant human PIN4 protein ab105618

1 Image

Description

Product name	Recombinant human PIN4 protein
Biological activity	Specific activity is > 700 nmol/min/mg, and is defined as the amount of enzyme that cleaves 1 nmole of suc-AAPF-pNA per minute at 37C in Tris-HCl pH 8.0 using chymotrypsin.
Purity	> 85 % SDS-PAGE. ab105618 was purified using conventional chromatography.
Expression system	Escherichia coli
Accession	<u>Q9Y237-2</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MGSSHHHHHHSSGLVPRGSH MPMAGLLKGLVRQLEQF RVQQQASKMPPKG KSGSGKAGKGGGAASGSDSADKKAQGPKGGGNAVKVRHI LCEKHGKIMEAM EKLKSGMRFNEVAAQYSEDKARQGGDLGWMTRGSMVG PFQEAAFALPVSG MDKPVFTDPPVKTKFGYHIIMVEGRK
Predicted molecular weight	19 kDa including tags
Amino acids	1 to 156
Tags	His tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab105618** in the following tested applications.

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

Applications	Functional Studies SDS-PAGE Mass Spectrometry
Mass spectrometry	MALDI-TOF
Form	Liquid

Preparation and Storage

Stability and Storage

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 8.00

Constituents: 0.00174% PMSF, 0.0154% DTT, 0.316% Tris HCl, 10% Glycerol (glycerin, glycerine)

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

General Info

Function

Isoform 1 is involved as a ribosomal RNA processing factor in ribosome biogenesis. Binds to tightly bent AT-rich stretches of double-stranded DNA.

Isoform 2 binds to double-stranded DNA.

Tissue specificity

Isoform 2 is much more stable than isoform 1 (at protein level). Ubiquitous. Isoform 1 and isoform 2 are expressed in kidney, liver, blood vessel, brain, mammary gland, skeletal muscle, small intestine and submandibularis. Isoform 1 transcripts are much more abundant than isoform 2 in each tissue analyzed.

Sequence similarities

Belongs to the ppiC/parvulin rotamase family. PIN4 subfamily.

Contains 1 PpiC domain.

Domain

The PPlase domain enhances mitochondrial targeting.

Post-translational modifications

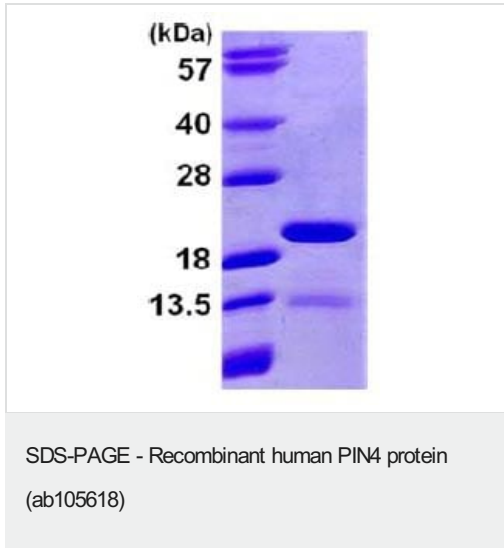
Phosphorylated. Isoform 1 phosphorylation occurs both in the nucleus and the cytoplasm. Isoform 1 phosphorylation at Ser-19 does not affect its PPlase activity but is required for nuclear localization, and the dephosphorylation is a prerequisite for the binding to DNA. The unphosphorylated isoform 1 associates with the pre-rRNP complexes in the nucleus.

Isoform 2 is sumoylated by SUMO2 and SUMO3.

Cellular localization

Mitochondrion. Mitochondrion matrix. Imported in a time- and membrane potential-dependent manner to the mitochondrial matrix, but without concomitant processing of the protein. Directed to mitochondria by a novel N-terminal domain that functions as non-cleavable mitochondrial targeting peptide and Nucleus > nucleolus. Cytoplasm > cytoskeleton > spindle. Cytoplasm. Colocalizes in the nucleolus during interphase and on the spindle apparatus during mitosis with NPM1.

Images



15% SDS-PAGE analysis of 3µg ab105618.

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

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