

Product datasheet

Recombinant human PI 3 Kinase Class 2A/Cpk protein ab133141

[2 Images](#)

Description

Product name	Recombinant human PI 3 Kinase Class 2A/Cpk protein
Biological activity	The specific activity of ab133141 was determined to be 22 nmol/min/mg.
Purity	> 70 % Densitometry.
Expression system	Baculovirus infected Sf9 cells
Accession	O00443
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Predicted molecular weight	157 kDa
Amino acids	299 to 1686

Specifications

Our [Abpromise guarantee](#) covers the use of **ab133141** 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 SDS-PAGE Functional Studies
Form	Liquid
Additional notes	This product was previously labelled as PI 3 Kinase Class 2A

Preparation and Storage

Stability and Storage	Shipped on Dry Ice. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle. pH: 7.50
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Constituents: 0.31% Glutathione, 0.002% PMSF, 0.005% DTT, 0.79% Tris HCl, 0.003% EDTA, 25% Glycerol (glycerin, glycerine), 0.88% Sodium chloride

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

General Info

Function

Phosphorylates PtdIns, PtdIns4P and PtdIns(4,5)P2. May play a role in clathrin-coated endocytic vesicle formation and EGF signaling cascade. May be involved in mitosis and UV-induced damage response. May be a downstream effector in insulin signaling cascade.

Tissue specificity

Expressed in columnar and transitional epithelia, mononuclear cells, smooth muscle cells, and endothelial cells lining capillaries and small venules (at protein level). Ubiquitously expressed, with highest levels in heart, placenta and ovary, and lowest levels in the kidney.

Sequence similarities

Belongs to the PI3/P14-kinase family.
Contains 1 C2 domain.
Contains 1 PI3K/PI4K domain.
Contains 1 PX (phox homology) domain.

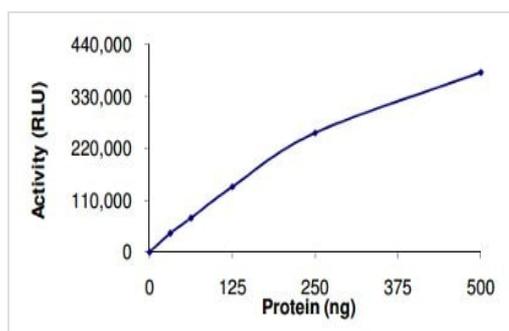
Post-translational modifications

Phosphorylated upon insulin stimulation; which may lead to enzyme activation (By similarity). Phosphorylated on Ser-259 during mitosis and upon UV irradiation; which does not change enzymatic activity but leads to proteasomal degradation. Ser-259 phosphorylation may be mediated by CDK1 or JNK, depending on the physiological state of the cell.

Cellular localization

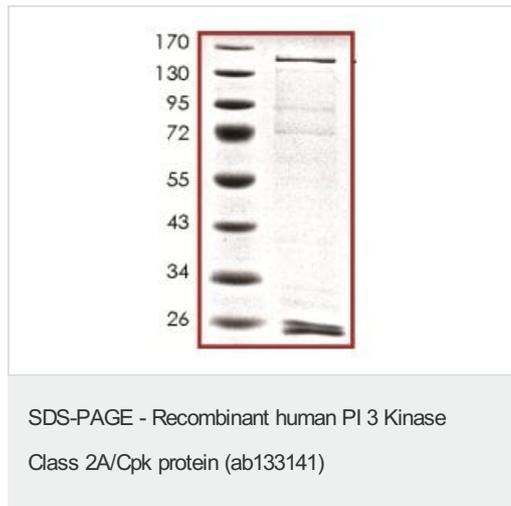
Cell membrane. Golgi apparatus. Cytoplasmic vesicle > clathrin-coated vesicle. Nucleus. Cytoplasm. According to PubMed:10766823 and PubMed:11239472, it is found in the cell membrane, the Golgi apparatus and in clathrin-coated vesicles. According to PubMed:17038310 it inserts preferentially into membranes containing PtdIns(4,5)P2. According to PubMed:11606566, it is nuclear and cytoplasmic. Associated with RNA-containing structures. According to PubMed:14563213, it is mainly cytoplasmic.

Images



The specific activity of ab133141 was determined to be 22 nmol/min/mg.

Functional Studies - Recombinant human PI 3 Kinase Class 2A/Cpk protein (ab133141)



SDS-PAGE analysis of ab133141.

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

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