For Research Use Only

Phospho-p70(S6K) (Thr421/Ser424) Polyclonal antibody

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Catalog Number:29248-1-AP

Basic Information

Catalog Number:
29248-1-AP

Size:
600 μg/ml

Source:
Rabbit

Isotype:
IgG

GenBank Accession Number:
BC053365

GeneID (NCBI):
6198

UNIPROT ID:
P23443

Full Name:
ribosomal protein S6 kinase, 70kDa, polypeptide 1

Calculated MW:
59 kDa

Observed MW:
65-85 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:1000-1:4000
IF/ICC 1:50-1:500

Applications

Tested Applications:
IF/ICC, WB, ELISA

Species Specificity:
Human

Positive Controls:

WB : λ phosphatase treated MCF-7 cells,

IF/ICC : λ phosphatase treated HeLa cells,

Background Information

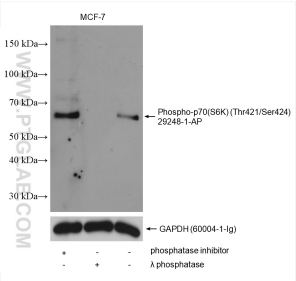
The Rps6kb1 gene encodes the 70 kDa ribosomal protein S6 kinase (p70S6K), which is a serine/threonine kinase regulated by phosphoinositide 3-kinase (PI3K)/mammalian target of rapamycin (mTOR) pathway. P70S6K plays a crucial role in controlling cell cycle, growth and survival. The PI3K/mTOR signalling pathway is one of the major mechanisms for controlling cell survival, proliferation and metabolism and is the central regulator of translation of some components of protein synthesis system. Due to alternative translation two isoform S6K1 proteins are known to exist in mammalian cells: p85 S6K1 and p70 S6K1, which is identical to p85 S6K but lacks its first 23 amino acids. In addition, mammalian cells express a second S6K1 isoform spanning 316 amino acids (p31 S6K1). In the conventional model, Thr421/Ser424 sites are phosphorylated before Thr389 phosphorylation by mammalian target of rapamycin complex 1 (mTORC1) and subsequent Thr229 phosphorylation by PDK1. (PMID: 25100792, PMID: 24970012, PMID: 21602892)

Storage

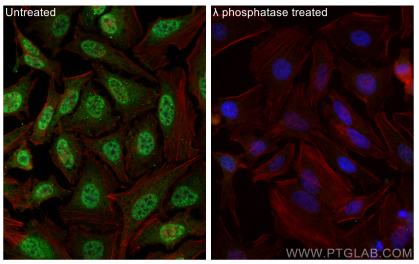
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

Selected Validation Data



Non-treated MCF-7 cells, phosphatase inhibitor treated and λ phosphatase MCF-7 cells were subjected to SDS PAGE followed by western blot with 29248-1-AP (Phospho-p70(S6K) (Thr421/Ser424) antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control.



Immunofluorescent analysis of (4% PFA) fixed λ phosphatase treated HeLa cells using Phospho-p70(S6K) (Thr421/Ser424) antibody (29248-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).