Human/Mouse/Rat p70 S6 Kinase PE-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 215247

Catalog Number: IC8962P

25 Tests

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat p70 S6 Kinase and p85 S6 Kinase in Western blots. Reactivity with β isoforms of p70 S6 Kinase is unknown.
Source	Monoclonal Mouse IgG_1 Clone # 215247
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human p70 S6 Kinase Accession # M60725
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

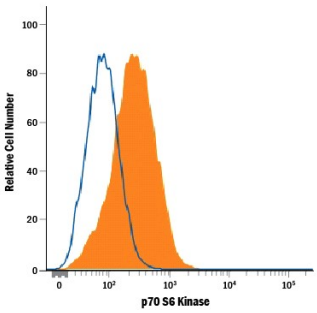
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Intracellular Staining by Flow Cytometry



Detection of p70 S6 Kinase in HeLa Human Cell Line by Flow Cytometry. HeLa human cervical epithelial carcinoma cell line was stained with Mouse Anti-Human/Mouse/Rat p70 S6 Kinase PE-conjugated Monoclonal Antibody (Catalog # IC8962P, filled histogram) or isotype control antibody (Catalog # IC002P, open histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

p70 S6 Kinase (p70S6K) is responsible for the phosphorylation of 40S ribosomal protein S6 and is ubiquitously expressed in human adult tissues. p70S6K is activated by serum stimulation and this activation is inhibited by wortmannin and rapamycin. p70S6K activity undergoes changes during the cell cycle and increases 20-fold in G1 cells released from G0. p70S6K activation requires sequential phosphorylations at proline-directed residues in the putative autoinhibitory pseudosubstrate domain, as well asT389, a site phosphorylated by phosphoinositide-dependent kinase 1 (PDK1) (1-3). Over amino acids (aa) 1-502, human and mouse share 99% aa sequence identity.

References:

1. Ferrari, S. *et al.* (1994) Crit. Rev. Biochem. Mol. Biol. **29**:385.
2. Edelmann, H.M. *et al.* (1996) J. Biol. Chem. **271**:963.
3. Fenton, T.R. and I.T. Gout (2011) Int. J. Biochem. Cell Biol. **43**:47.

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