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Phospho-S6 Ribosomal Protein (Ser235/236) (D57.2.2E) XP[®] Rabbit mAb (Alexa Fluor[®] 647 Conjugate)



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:Reactivity:Sensitivity:Source/Isotype:UniProt ID:Entrez-Gene Id:IF-IC, FC-FPH M R Mk Mi ScEndogenousRabbit IgG#P627536194

 Product Usage Information
 Application
 Dilution

 Immunofluorescence (Immunocytochemistry)
 1:50 - 1:200

 Flow Cytometry (Fixed/Permeabilized)
 1:50

Storage Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

Specificity / Sensitivity

Phospho-S6 Ribosomal Protein (Ser235/236) (D57.2.2E) XP® Rabbit mAb (Alexa Fluor® 647 Conjugate) detects endogenous levels of ribosomal protein S6 only when phosphorylated at Ser235 and 236.

Species predicted to react based on 100% sequence homology:

Chicken, Pig

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser235 and Ser236 of human ribosomal protein S6. The antibody was conjugated to Alexa Fluor® 647 under optimal conditions with an F/P ratio of 2-5. The Alexa Fluor® 647 dye is maximally excited by red light (e.g. 633 nm He-Ne laser). Antibody conjugates of the Alexa Fluor® 647 dye produce bright far-red-fluorescence emission, with a peak at 665 nm.

Product Description

This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 647 fluorescent dye and tested inhouse for direct flow cytometry and immunofluorescent analysis in human cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-S6 Ribosomal Protein (Ser235/236) (D57.2.2E) XP® Rabbit mAb #4858.

Background

One way that growth factors and mitogens effectively promote sustained cell growth and proliferation is by upregulating mRNA translation (1,2). Growth factors and mitogens induce the activation of p70 S6 kinase and the subsequent phosphorylation of S6 ribosomal protein. Phosphorylation of S6 ribosomal protein correlates with an increase in translation of mRNA transcripts that contain an oligopyrimidine tract in their 5' untranslated regions (2). These particular mRNA transcripts (5'TOP) encode proteins involved in cell cycle progression, as well as ribosomal proteins and elongation factors necessary for translation (2,3). Important S6 ribosomal protein phosphorylation sites include several residues (Ser235, Ser236, Ser240, and Ser244) located within a small, carboxy-terminal region of S6 protein (4,5).

Background References

- 1. Dufner, A. and Thomas, G. (1999) Exp Cell Res 253, 100-9.
- 2. Peterson, R.T. and Schreiber, S.L. (1998) Curr Biol 8, R248-50.
- 3. Jefferies, H.B. et al. (1997) EMBO J 16, 3693-704.
- 4. Ferrari, S. et al. (1991) J Biol Chem 266, 22770-5.
- 5. Flotow, H. and Thomas, G. (1992) J Biol Chem 267, 3074-8.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key

IF-IC: Immunofluorescence (Immunocytochemistry) FC-FP: Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster

X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse

GP: Guinea Pig Rab: rabbit All: all species expected

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