

Phospho-S6 Ribosomal Protein (Ser235/236) (D57.2.2E) XP™ Rabbit mAb (Alexa Fluor® 488 Conjugate)

✓ 100 µl
(50 tests)

New more concentrated formulation

rev. 03/19/10

Orders ■ 877-616-CELL (2355)

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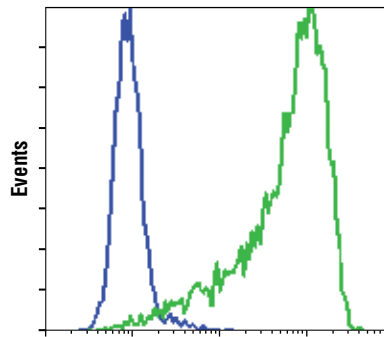
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Isotype
IF-IC, F Endogenous	H, M, R, Mk, Sc	Rabbit IgG

Description: This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-house for direct flow cytometric analysis of human cells. The unconjugated Phospho-S6 Ribosomal Protein (Ser235/236) (D57.2.2E) XP™ Rabbit mAb #4858 reacts with human, mouse, rat, monkey and *S. cerevisiae* phospho-S6 Ribosomal protein. CST expects that Phospho-S6 Ribosomal Protein (Ser235/236) (D57.2.2E) XP™ Rabbit mAb (Alexa Fluor® 488 Conjugate) will also recognize phospho-S6 ribosomal protein in these species.

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 the 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 the S6 protein (4,5).

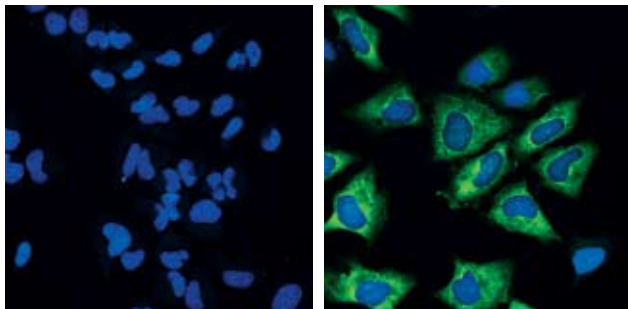
Specificity/Sensitivity: Phospho-S6 Ribosomal Protein (Ser235/236) (D57.2.2E) XP™ Rabbit mAb (Alexa Fluor® 488 Conjugate) detects endogenous levels of S6 ribosomal protein only when phosphorylated at Ser235 and Ser236.



Phospho-S6 Ribosomal Protein (Ser235/236)
(Alexa Fluor® 488 Conjugate)

Flow cytometric analysis of Jurkat cells, untreated (green), or LY294002/wortmannin/U0126-treated (blue), using Phospho-S6 Ribosomal Protein (Ser235/236) (D57.2.2E) XP™ Rabbit mAb (Alexa Fluor® 488 Conjugate).

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser235 and Ser236 of human S6 ribosomal protein. The antibody was conjugated to Alexa Fluor® 488 under optimal conditions with an F/P ratio of 2-6.



Confocal immunofluorescent analysis of HeLa cells, treated with wortmannin and U0126 (left) or PMA (right), using Phospho-S6 Ribosomal Protein (Ser235/236) (D57.2.2E) Rabbit mAb (Alexa Fluor® 488 Conjugate). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

Entrez-Gene ID #6194

Swiss-Prot Acc. #P62753

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

*Species cross-reactivity other than human is determined by Western blot using the unconjugated antibody.

Recommended Antibody Dilutions:

Immunofluorescence (IF-IC)	1:100
Flow Cytometry	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

- (1) Dufner, A. and Thomas, G. (1999) *Exp. Cell Res.* 253, 100–109.
- (2) Peterson, R.T. and Schreiber, S.L. (1998) *Curr. Biol.* 8, R248–R250.
- (3) Jefferies, H.B. et al. (1997) *EMBO J.* 16, 3693–3704.
- (4) Ferrari, S. et al. (1991) *J. Biol. Chem.* 266, 22770–22775.
- (5) Flotow, H. and Thomas, G. (1992) *J. Biol. Chem.* 267, 3074–3078.

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The Alexa Fluor® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc., for research use only, except for use in combination with DNA microarrays. The Alexa Fluor® dyes (except for Alexa Fluor® 430 dye) are covered by pending and issued patents.

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected