

Store at  
-20°C

#8207

# PhosphoPlus® S6 Ribosomal Protein (Ser235/Ser236) Antibody Duet



Cell Signaling  
TECHNOLOGY®

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Entrez-Gene ID #6194  
UniProt ID #P62753

Rev. 07/31/18

For Research Use Only. Not For Use In Diagnostic Procedures.

Products Included	Product #	Quantity	Mol. Wt.	Isotype/Source
Phospho-S6 Ribosomal Protein (S235/236) (D57.2.2E) XP® Rabbit mAb	4858	100 µl	32 kDa	Rabbit IgG
S6 Ribosomal Protein (5G10) Rabbit mAb	2217	100 µl	32 kDa	Rabbit IgG

See [www.cellsignal.com](http://www.cellsignal.com) for individual component applications, species cross-reactivity, dilutions, and additional application protocols.

**Description:** PhosphoPlus® Duets from Cell Signaling Technology (CST) provide a means to assess protein activation status. Each Duet contains an activation-state and total protein antibody to your target of interest. These antibodies have been selected from CST's product offering based upon superior performance in specified applications.

**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 detects endogenous levels of ribosomal protein S6 only when phosphorylated at Ser235 and 236. S6 Ribosomal Protein (5G10) Rabbit Monoclonal Antibody detects endogenous levels of total S6 ribosomal protein independent of phosphorylation.

**Source/Purification:** Monoclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser235 and Ser236 of human ribosomal protein S6 or with a synthetic peptide corresponding to residues of human S6 ribosomal protein.

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

#### 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.

U.S. Patent No. 7,429,487, foreign equivalents, and child patents deriving therefrom.

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**Applications:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** 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 **Species** enclosed in parentheses are predicted to react based on 100% homology.