Store at 4°C

#4320

Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb (Alexa Fluor® 647 Conjugate)

☑ 100 µl
(50 tests)

New more concentrated formulation

rev. 12/01/09

Cell Signaling TECHNOLOGY®

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
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info@cellsignal.com
Web ■ www.cellsignal.com

Entrez-Gene ID #9261
Swiss-Prot Acc. #P49137

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

Description: This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 647 fluorescent dye and tested in-house for direct flow cytometric analysis of human cells. The unconjugated antibody #3007 reacts with human, mouse, monkey and rat. Phospho-MAPKAPK-2. CST expects that Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb (Alexa Fluor® 647 conjugate) will also recognize Phospho-MAPKAPK-2 in these species.

Background: In response to cytokines, stress and chemotactic factors, MAP kinase-activated protein kinase 2 (MAPKAPK-2) is rapidly phosphorylated and activated. It has been shown that MAPKAPK-2 is a direct target of p38 MAPK (1). Multiple residues of MAPKAPK-2 are phosphorylated *in vivo* in response to stress. However, only four residues (Thr25, Thr222, Ser272 and Thr334) are phosphorylated by p38 MAPK in an *in vitro* kinase assay (2). Phosphorylation at Thr222, Ser272 and Thr334 appears to be essential for the activity of MAPKAPK-2 (2). Thr25 is phosphorylated by p42 MAPK *in vitro*, but is not required for the activation of MAPKAPK-2 (2).

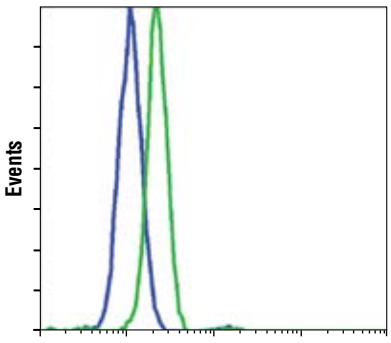
Specificity/Sensitivity: Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb (Alexa Fluor® 647 Conjugate) detects endogenous levels of MAPKAPK-2 protein only when phosphorylated at Thr334.

Source/Purification: Monoclonal antibodies are produced by immunizing animals with a synthetic phospho-peptide (KLH-coupled) corresponding to residues surrounding Thr334 of human MAPKAPK-2. This antibody was conjugated to Alexa Fluor® 647 under optimal conditions with an F/P ratio of 2-6. 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.

Background References:

(1) Rouse, J. et al. (1994) *Cell* 78, 1027–1037.

(2) Ben-Levy, R. et al. (1995) *EMBO J.* 14, 5920–5930.



Flow cytometric analysis of THP-1 cells, untreated (blue) or anisomycin-treated (green), using Phospho-MAPKAPK-2 (Thr334) (27B7) Rabbit mAb (Alexa Fluor® 647 Conjugate).

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:

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.

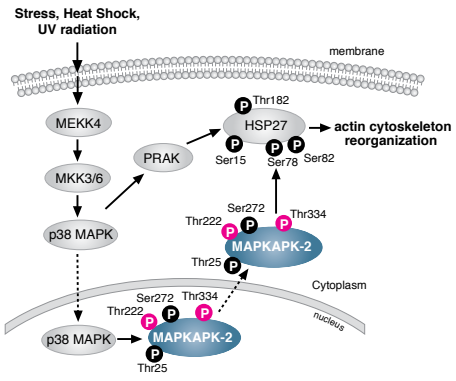


Fig.1: Phosphorylation of HSP27 by a p39 MAPK pathway modulates actin polymerization and reorganization.

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