## p38 MAP Kinase **Control Cell Extracts**

✓ Controls for 10 westerns



**Orders** 877-616-CELL (2355)

orders@cellsignal.com

**Support** 877-678-TECH (8324)

info@cellsignal.com

Web www.cellsignal.com

rev. 10/26/17

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

Product Includes	Product #	Quantity
p38 MAPK Control Cell Extracts (C6 untreated)	28670	150 ul
p38 MAPK Control Cell Extracts (C6 +anisomycin)	48080	150 ul

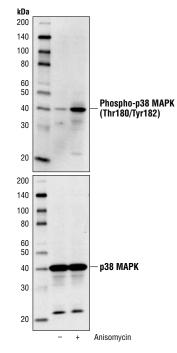
Background: p38 MAP kinase (MAPK), also called RK (1) or CSBP (2), is the mammalian orthologue of the yeast HOG kinase which participates in a signaling cascade controlling cellular responses to cytokines and stress (1-4). Four isoforms of p38 MAP kinase, p38 $\alpha$ ,  $\beta$ ,  $\gamma$  (also known as ERK6 or SAPK3) and  $\delta$  (also known as SAPK4) have been identified. Similar to the SAPK/JNK pathway, p38 MAP kinase is activated by a variety of cellular stresses including osmotic shock, inflammatory cytokines, lipopolysaccharides (LPS), UV light and growth factors (1-5). MKK3, MKK6 and SEK activate p38 MAP kinase by phosphorylation at Thr180 and Tyr182. Activated p38 MAP kinase has been shown to phosphorylate and activate MAPKAP kinase 2 (3) and to phosphorylate the transcription factors ATF-2 (5), Max (6) and MEF2 (5-8).

## Description:

Nonphosphorylated p38 MAPK Control Cell Extracts: Total extracts from C-6 glioma cells to serve as a negative control. Supplied in SDS Sample Buffer.

Phosphorylated p38 MAPK Control Cell Extracts: Total extracts from C-6 glioma cells treated with Anisomycin #2222 at 25 ug/ml for 30 minutes to serve as a positive control. Supplied in SDS Sample Buffer

Directions for Use: Boil for 3 minutes prior to use. Load 15 µl of phosphorylated and nonphosphorylated p38 MAP Kinase Control Cell Extracts per lane.



Western blot analysis of p38 MAPK Control Cell extracts using Phospho-p38 MAPK (Thr180/Tyr182) (D3F9) XP® Rabbit mAb 4511 (upper) and p38 MAPK Antibody #9212 (lower).

Storage: Supplied in SDS Sample Buffer: 62.5 mM Tris-HCI (pH 6.8 at 25°C), 2% w/v SDS, 10% glycerol, 50 mM DTT, 0.01% w/v phenol red or bromophenol blue. Store at -20°C or at -80°C for long term storage.

For product 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 complementary products.

## **Background References:**

- (1) Rouse, J. et al. (1994) Cell 78, 1027-1037.
- (2) Han, J. et al. (1994) Science 265, 808-811.
- (3) Lee, J.C. et al. (1994) Nature 372, 739-746.
- (4) Freshney, N.W. et al. (1994) Cell 78, 1039-1049.
- (5) Raingeaud, J. et al. (1995) J. Biol. Chem. 270, 7420-7426.
- (6) Zervos, A.S. et al. (1995) Proc. Natl. Acad. Sci. USA 92, 10531-10534.
- (7) Zhao, M. et al. (1999) Mol. Cell. Biol. 19, 21-30.
- (8) Yang, S.H. et al. (1999) Mol. Cell. Biol. 19, 4028-4038.

XP® and Cell Signaling Technology® are trademarks of Cell Signaling Technology, Signaling Technology, Inc. © 2013 Cell

ᆵ

**Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **AII**—all species expected