Revision 1

#9910 Store at -20°C

Phospho-MAPK Family Antibody Sampler Kit

1 Kit (3 x 20 microliters)

Cell Signaling TECHNOLOGY®

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

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Phospho-p38 MAPK (Thr180/Tyr182) (D3F9) XP® Rabbit mAb	4511	20 µl	43 kDa	Rabbit IgG
Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) (D13.14.4E) XP® Rabbit mAb	4370	20 µl	44, 42 kDa	Rabbit IgG
Phospho-SAPK/JNK (Thr183/Tyr185) (81E11) Rabbit mAb	4668	20 µl	46, 54 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The Phospho-MAPK Family Antibody Sampler Kit provides an economical means of evaluating the phosphorylation state of p38, p44/42, and SAPK/JNK mitogen-activated protein kinases. The kit contains enough primary and secondary antibodies to perform two western blot experiments.

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

p44/42 MAPK (Erk1/2), SAPK/JNK, and p38 MAPK function in protein kinase cascades that play a critical role in the regulation of cell growth, differentiation, and control of cellular responses to cytokines and stress. p44/42 MAPK is activated by growth and neurotrophic factors. Activation occurs through phosphorylation of threonine and tyrosine residues (Thr202 and Tyr204 in human Erk1) at the sequence T*EY* by a single upstream MAP kinase kinase (MEK). SAPK/JNK and p38 MAPK are activated by inflammatory cytokines and by a wide variety of cellular stresses. Activation of SAPK/JNK occurs via phosphorylation at Thr183 and Tyr185 by the dual specificity enzyme SEK/MKK4. Both MKK3 and SEK phosphorylate p38 MAPK on tyrosine and threonine at the sequence T*GY* to activate p38 MAP kinase (1-5).

Background References

1. Lewis, T. S. et al. (1998) *Adv. Cancer Res.* 74, 49-139.
2. Garrington, T.P. and Johnson, G.L. (1999) *Curr. Opin. Cell. Biol.* 11, 211-218.
3. Schaeffer, H.J. and Weber, M.J. (1999) *Mol. Cell. Biol.* 19, 2435-2444.
4. Whitmarsh, A.J. and Davis, R.J. (1998) *Trends Biochem. Sci.* 23, 481-485.
5. Cobb, M.H. (1999) *Prog. Biophys. Mol. Biol.* 71, 479-500.

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