#9910 Store at -20°C

# Phospho-MAPK Family Antibody Sampler Kit



Orders:

877-616-CELL (2355) orders@cellsignal.com

Support:

877-678-TECH (8324)

1 Kit (3 x 20 microliters)

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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 μΙ	43 kDa	Rabbit IgG
Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) (D13.14.4E) XP® Rabbit mAb	4370	20 μΙ	44, 42 kDa	Rabbit IgG
Phospho-SAPK/JNK (Thr183/Tyr185) (81E11) Rabbit mAb	4668	20 μΙ	46, 54 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 μΙ		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  $\mu$ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at  $-20^{\circ}$ 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.
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- 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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