

## Phospho-p38 MAPK Pathway Sampler Kit

<b>Catalog No.</b>	E-AB-K3017	<b>Reactivity</b>	Human
<b>Storage</b>	Store at -20°C, Avoid freeze / thaw cycles	<b>Applications</b>	WB
<b>Buffer</b>	PBS with sodium azide and glycerol.	<b>Dilution</b>	1:500-1:2000

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

Included	Product	Isotype	Mol. Wt.	Size
E-AB-21095		IgG	90kDa	20µL
E-AB-21027	Phospho-P38 (Thr180/Tyr182) Polyclonal Antibody	Rabbit IgG	38kDa	20µL
E-AB-20924		IgG	39kDa	20µL
E-AB-20816		IgG	52kDa	20µL
E-AB-20897	Phospho-HSP27 (Ser82) Polyclonal Antibody	Rabbit IgG	27kDa	20µL
E-AB-1003	Goat Anti-Rabbit IgG(H+L)(peroxidase/HRP conjugated)	Goat		120µL

### Product Description

The Phospho-p38 MAPK Pathway Sampler Kit provides an economical means to evaluate the activation status of multiple members of the p38 MAPK pathway, including phosphorylated MSK1, p38 MAPK, MKK3, ATF-2 and HSP27. The kit includes enough primary and secondary antibodies to perform two Western blot experiments.

Please visit [www.elabscience.com](http://www.elabscience.com) for validation data and a complete listing of recommended companion products.

### Background

p38 MAP kinase (MAPK), also called RK or CSBP, is the mammalian orthologue of the yeast HOG kinase that participates in a signaling cascade controlling cellular responses to cytokines and stress. Four isoforms of p38 MAPK, 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 MAPK is activated by a variety of cellular stresses including osmotic shock, inflammatory cytokines, lipopolysaccharide (LPS), UV light, and growth factors (1-5). MKK3, MKK6, and SEK activate p38 MAPK by phosphorylation at Thr180 and Tyr182. Activated p38 MAPK has been shown to phosphorylate and activate MAPKAP kinase 2 and to phosphorylate the transcription factors ATF-2, Max, and MEF2. SB203580 (4-(4-fluorophenyl)-2-(4-methylsulfinylphenyl)-5-(4-pyridyl)-imidazole) is a selective inhibitor of p38 MAPK. This compound inhibits the activation of MAPKAPK-2 by p38 MAPK and subsequent phosphorylation of HSP27. SB203580 inhibits p38 MAPK catalytic activity by binding to the ATP-binding pocket, but does not inhibit phosphorylation of p38 MAPK by upstream kinases.