

# Cellular Activation of Signaling ELISA:

## CASE™ Kit for p38 T180/Y182

<u>Catalog Number</u>	<u>Contents</u>
FE-003	One CASE Kit for 96 cell-based assays

### Description

The CASE™ Kit for p38 is designed to analyze p38 phosphorylation in cultured human and mouse cell lines. This cell-based ELISA kit quantifies the amount of activated (phosphorylated) p38 protein relative to total p38 protein. The p38 phosphorylation sites are threonine 180 and tyrosine 182. By determining p38 protein phosphorylation in your experimental model system, you can verify p38 pathway activation in your cell line and determine the effect of various treatments, inhibitors, or activators on the pathway.

#### **More information on p38 protein from NCBI:**

“The protein [p38] is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. This kinase is activated by various environmental stresses and proinflammatory cytokines. The activation requires its phosphorylation by MAP kinase kinases (MKKs), or its autophosphorylation triggered by the interaction of MAP3K7IP1/TAB1 protein with this kinase. The substrates of this kinase include transcription regulator ATF2, MEF2C, and MAX, cell cycle regulator CDC25B, and tumor suppressor p53, which suggest the roles of this kinase in stress related transcription and cell cycle regulation, as well as in genotoxic stress response.”

Reference: [www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&val=4503068](http://www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&val=4503068)

### Materials Included

**Please check the kit components immediately after you receive this package. SuperArray is not responsible for any missing items not reported within two (2) business days upon receipt.**

**Shelf Life:** All reagents are stable at the recommended temperature for 6 months after receipt of the kit.

Enough reagents are provided for 96 assays.

<b>Box 1: Assay and Detection Reagents</b> (Store at 4°C)	<b>Box 2: Primary Antibodies<sup>1</sup></b> (Store at -20°C)	<b>Dilution Factor</b>
<b>Components</b>	<b>Components</b>	
10X Antigen Retrieval Buffer <sup>2</sup>	Anti-Phospho-Protein Specific Antibody	1:100
10X Washing Buffer <sup>2</sup>	Anti-Pan-Protein Specific Antibody	1:100
Antibody Dilution Buffer		
Blocking Buffer, dry powder <sup>3</sup>		
Cell Staining Solution		
Developing Solution		
Secondary Antibody <sup>1</sup> (Dilute 1:16 before use.)		
Stop Solution		
Washing Buffer Reservoir (4)		

<sup>1</sup>Each antibody stock must be freshly diluted by the appropriate factor into Antibody Dilution Buffer on the same day of the experiment. See the CASE™ Kit User Manual for more details.

<sup>2</sup>10X Washing Buffer and 10X Antigen Retrieval Buffer must be diluted to 1X with dH<sub>2</sub>O before use.

<sup>3</sup>Just before use, dissolve powder in 30 ml 1X Washing Buffer by mixing well. Once dissolved, Blocking Buffer may be stored at 4 °C for up to two (2) weeks.

## **Shipping and Storage Conditions**

Box 1 is shipped at either ambient or a refrigerated temperature and should be stored at 4°C.  
Box 2 is shipped on dry ice or cold packs and should be stored at -20°C.

## **Related Products**

Inhibitors for Functional Assays: Inhibitors of pathway activation that serve as a control for specificity.

### **For follow-up at the expression level:**

RT<sup>2</sup> Profiler™ PCR Arrays and Oligo GEArray® Microarrays  
(See [www.superarray.com/ArrayList.php](http://www.superarray.com/ArrayList.php) for complete listings)

RT<sup>2</sup> Real-Time™ PCR Primer Sets – available for every human, mouse, and rat gene  
(See [www.superarray.com/QRTsearch.php](http://www.superarray.com/QRTsearch.php) for our primer set search engine)

### **For knock down of gene expression:**

SureSilencing™ shRNA Plasmids – available for every human, mouse, and rat gene  
(See [www.superarray.com/RNAisearch.php](http://www.superarray.com/RNAisearch.php) for complete listings)