

# Cellular Activation of Signaling ELISA:

## CASE™ Kit for ERK1/2 T202/Y204

<u>Catalog Number</u>	<u>Contents</u>
FE-002	One CASE Kit for 96 cell-based assays

### Description

The CASE™ Kit for ERK1/2 is designed to analyze ERK1/2 phosphorylation in cultured human and mouse cell lines. This cell-based ELISA kit quantifies the amount of activated (phosphorylated) ERK1/2 protein relative to total ERK1/2 protein. The ERK phosphorylation sites are threonine 202 and tyrosine 204. By determining ERK1/2 protein phosphorylation in your experimental model system, you can verify ERK pathway activation in your cell line and determine the effect of various treatments, inhibitors, or activators on the pathway.

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

The proteins encoded by the genes ERK1 and ERK2 are members of “the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), 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. The activation of this kinase requires its phosphorylation by upstream kinases. Upon activation, this kinase translocates to the nucleus of the stimulated cells, where it phosphorylates nuclear targets.”

Reference: [www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&val=20986528](http://www.ncbi.nlm.nih.gov/entrez/viewer.fcgi?db=nucleotide&val=20986528)

### 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>Components</b>	<b>Components</b>	<b>Dilution Factor</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)