

# Cellular Activation of Signaling ELISA:

## CASE™ Kit for p53 S15

<u>Catalog Number</u>	<u>Contents</u>
FE-015	One CASE Kit for 96 cell-based assays

### Description

The CASE™ Kits for p53 are designed to analyze p53 phosphorylation in cultured human cell lines. These cell-based ELISA kits quantify the amount of activated (phosphorylated) p53 protein relative to total p53 protein. The phosphorylation site is serine 15. By determining p53 protein phosphorylation in your experimental model system, you can verify p53 pathway activation in your cell line and determine the effect of various treatments, inhibitors, or activators on the pathway.

#### **More information on the p53 protein from NCBI:**

“Tumor protein p53, a nuclear protein, plays an essential role in the regulation of cell cycle, specifically in the transition from G0 to G1. It is found in very low levels in normal cells; however, in a variety of transformed cell lines, it is expressed in high amounts, and believed to contribute to transformation and malignancy. p53 is a DNA-binding protein containing DNA-binding, oligomerization and transcription activation domains. It is postulated to bind as a tetramer to a p53-binding site and activate expression of downstream genes that inhibit growth and/or invasion, and thus function as a tumor suppressor. Mutants of p53 that frequently occur in a number of different human cancers fail to bind the consensus DNA binding site, and hence cause the loss of tumor suppressor activity. Alterations of the TP53 gene occur not only as somatic mutations in human malignancies, but also as germline mutations in some cancer-prone families with Li-Fraumeni syndrome.”

Reference: [www.ncbi.nlm.nih.gov/entrez/query.fcgi?dopt=GenPept&cmd=Retrieve&db=protein&list\\_uids=8400738](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?dopt=GenPept&cmd=Retrieve&db=protein&list_uids=8400738)

### 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.

#### **Box 1: Assay and Detection Reagents** (Store at 4°C)

<u>Components</u>
10X Antigen Retrieval Buffer <sup>2</sup>
10X Washing Buffer <sup>2</sup>
Antibody Dilution Buffer
Blocking Buffer, dry powder <sup>3</sup>
Cell Staining Solution
Developing Solution
Secondary Antibody A <sup>1,4</sup> (Dilute 1:16 before use.)
Secondary Antibody B <sup>1,5</sup> (Dilute 1:16 before use.)
Stop Solution
Washing Buffer Reservoir (4)

#### **Box 2: Primary Antibodies<sup>1</sup>** (Store at -20°C)

<u>Components</u>	<u>Dilution Factor</u>
Anti-Phospho-Protein Specific Antibody	1:100
Anti-Pan-Protein Specific Antibody	1:100

<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 dH2O 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.

<sup>4</sup>Secondary Antibody A must be used with the Pan-Protein Specific Primary Antibody.

<sup>5</sup>Secondary Antibody B must be used with the Phospho-Protein Specific Primary Antibody.

## **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)