

Cellular Activation of Signaling ELISA:

CASE™ Kit for STAT3 Y705

<u>Catalog Number</u>	<u>Contents</u>
FE-018	One CASE Kit for 96 cell-based assays

Description

The CASE™ Kits for STAT3 are designed to analyze STAT3 phosphorylation in cultured human and mouse cell lines. These cell-based ELISA kits quantify the amount of activated (phosphorylated) STAT3 protein relative to total STAT3 protein. The phosphorylation site is tyrosine 705. By determining STAT3 protein phosphorylation in your experimental model system, you can verify JAK / STAT pathway activation in your cell line and determine the effect of various treatments, inhibitors, or activators on the pathway.

More information on the STAT3 protein from NCBI:

“The protein encoded by this gene is a member of the STAT protein family. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. This protein is activated through phosphorylation in response to various cytokines and growth factors including IFNs, EGF, IL5, IL6, HGF, LIF and BMP2. This protein mediates the expression of a variety of genes in response to cell stimuli, and thus plays a key role in many cellular processes such as cell growth and apoptosis. The small GTPase Rac1 has been shown to bind and regulate the activity of this protein. PIAS3 protein is a specific inhibitor of this protein. Three alternatively spliced transcript variants encoding distinct isoforms have been described.”

Reference: www.ncbi.nlm.nih.gov/entrez/query.fcgi?dopt=GenPept&cmd=Retrieve&db=protein&list_uids=21618338

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)	Box 2: Primary Antibodies¹ (Store at -20°C)	Dilution Factor
Components	Components	
10X Antigen Retrieval Buffer ²	Anti-Phospho-Protein Specific Antibody	1:100
10X Washing Buffer ²	Anti-Pan-Protein Specific Antibody	1:100
Antibody Dilution Buffer		
Blocking Buffer, dry powder ³		
Cell Staining Solution		
Developing Solution		
Secondary Antibody ¹ (Dilute 1:16 before use.)		
Stop Solution		
Washing Buffer Reservoir (4)		

¹Each 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.

²10X Washing Buffer and 10X Antigen Retrieval Buffer must be diluted to 1X with dH₂O before use.

³Just 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:

RT² Profiler™ PCR Arrays and Oligo GEArray® Microarrays
(See www.superarray.com/ArrayList.php for complete listings)

RT² Real-Time™ PCR Primer Sets – available for every human, mouse, and rat gene
(See 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 for complete listings)