

### PRODUCT DATA SHEET

Bioworld Technology,Inc.

# c-Fos (phospho-T232) polyclonal antibody

Catalog: BS74001 Host: Rabbit Reactivity: Human, Mouse, Rat

#### **BackGround:**

The Fos family of nuclear oncogenes includes c-Fos, FosB, Fos-related antigen 1 (FRA1), and Fos-related antigen 2 (FRA2) (1). While most Fos proteins exist as a single isoform, the FosB protein exists as two isoforms: full-length FosB and a shorter form, FosB2 (Delta FosB), that lacks the carboxy-terminal 101 amino acids (1-3). The expression of Fos proteins is rapidly and transiently induced by a variety of extracellular stimuli including growth factors, cytokines, neurotransmitters, polypeptide hormones, and stress. Fos proteins dimerize with Jun proteins (c-Jun, JunB, and JunD) to form Activator Protein-1 (AP-1), a transcription factor that binds to TRE/AP-1 elements and activates transcription. Fos and Jun proteins contain the leucine-zipper motif that mediates dimerization and an adjacent basic domain that binds to DNA. The various Fos/Jun heterodimers differ in their ability to transactivate AP-1 dependent genes. In addition to increased expression, phosphorylation of Fos proteins by Erk kinases in response to extracellular stimuli may further increase transcriptional activity (4-6). Phosphorylation of c-Fos at Ser32 and Thr232 by Erk5 increases protein stability and nuclear localization (5). Phosphorylation of FRA1 at Ser252 and Ser265 by Erk1/2 increases protein stability and leads to overexpression of FRA1 in cancer cells (6). Following growth factor stimulation, expression of FosB and c-Fos in quiescent fibroblasts is immediate, but very short-lived, with protein levels dissipating after several hours (7). FRA1 and FRA2 expression persists longer, and appreciable levels can be detected in asynchronously growing cells (8). Deregulated expression of c-Fos, FosB, or FRA2 can result in neoplastic cellular transformation; however, Delta FosB lacks the ability to transform cells (2,3).

#### **Product:**

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide,

50% glycerol, pH7.2

#### **Molecular Weight:**

~ 62 kDa

### **Swiss-Prot:**

P01100

#### **Purification&Purity:**

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

### **Applications:**

WB 1:500 - 1:2000

IF 1:50 - 1:100

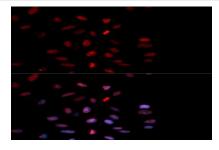
### Storage&Stability:

Store at  $4\,\mathrm{C}$  short term. Aliquot and store at -20  $\mathrm{C}$  long term. Avoid freeze-thaw cycles.

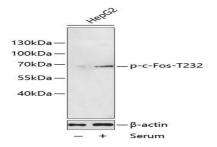
#### **Specificity:**

c-Fos (phospho-T232) polyclonal antibody detects endogenous levels of c-Fos protein only when phosphorylated at Thr232.

#### **DATA:**



Immunofluorescence analysis of MCF7 cell using Phospho-FOS-T232 antibody. Blue: DAPI for nuclear staining.



### Bioworld Technology, Inc.

Add: 1660 South Highway 100, Suite 500 St. Louis Park,

MN 55416,USA.

Email: <u>info@bioworlde.com</u>

Tel: 6123263284 Fax: 6122933841

### Bioworld technology, co. Ltd.

Add: No 9, weidi road Qixia District Nanjing, 210046,

P. R. China.

Email: <u>info@biogot.com</u>
Tel: 0086-025-68037686
Fax: 0086-025-68035151



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Western blot analysis of extracts of HepG2 cells, using Phos-

Note:

pho-c-Fos-T232 antibody. For research use only, not for use in diagnostic procedure.

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P. R. China.

Email: <a href="mailto:info@biogot.com">info@biogot.com</a>
Tel: 0086-025-68037686
Fax: 0086-025-68035151