SunLong Biotech Co.,LTD
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Rabbit Anti-c-fos antibody

SL0469R

Product Name	c-fos
Alias	Cellular oncogene fos; FBJ murine osteosarcoma viral v fos oncogene homolog antibody FBJ Osteosarcoma Virus; FOS; FOS protein; G0 G1 switch regulatory protein 7; G0S7; Oncogene FOS; Proto oncogene protein c fos; v fos FBJ murine osteosarcoma viral oncogene homolog; AP-1; p55; FOS_HUMAN; Proto-oncogene c-Fos; G0/G1 switch regulatory protein 7.
Research Area	Tumour Cell biology immunology Neurobiology Signal transduction transcriptional regulatory factor TumourCell biologyMaker
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, Mouse, Rat, (predicted: Pig,)
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	41kDa
Cellular localization	The nucleus cytoplasmic
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human c-fos: 1-100/380
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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The Fos gene family consists of 4 members: FOS, FOSB, FOSL1, and FOSL2. These genes encode leucine zipper proteins that can dimerize with proteins of the JUN family, thereby forming the transcription factor complex AP-1. As such, the FOS proteins have been implicated as regulators of cell proliferation, differentiation, and transformation. In some cases, expression of the FOS gene has also been associated with apoptotic cell death. [provided by RefSeq, Jul 2008].

Product Detail

Function:
Nuclear phosphoprotein which forms a tight butnon-covalently linked complex with the JUN/AP-1 transcriptionfactor. In the heterodimer, FOS and JUN/AP-1 basic regions eachseems to interact with symmetrical DNA half sites. On TGF-betaactivation, forms a multimeric SMAD3/SMAD4/JUN/FOS complex at theAP1/SMAD-binding site to regulate TGF-beta-mediated signaling. Hasa critical function in regulating the Has a critical function inregulating the development of cells destined to form and maintainthe skeleton. It is thought to have an important role in signaltransduction, cell proliferation and differentiation.

Subunit:
Heterodimer; with JUN (By similarity). Interacts withMAFB. Component of the SMAD3/SMAD4/JUN/FOS complexrequired for syngernistic TGF-beta-mediated transcription at theAP1 promoter site. Interacts with SMAD3; the interaction is weakeven on TGF-beta activation. Interacts with MAFB. Interacts withDSIPI; this interaction inhibits the binding of active AP1 to itstarget DNA.

Subcellular Location:
Nucleus.

Post-translational modifications:
Phosphorylated in the C-terminal upon stimulation by nervegrowth factor (NGF) and epidermal growth factor (EGF).Phosphorylated, in vitro, by MAPK and RSK1. Phosphorylation on bothSer-362 and Ser-374 by MAPK1/2 and RSK1/2 leads to proteinstabilization with phosphorylation on Ser-374 being the major sitefor protein stabilization on NGF stimulation. Phosphorylation onSer-362 and Ser-374 primes further phosphorylations on Thr-325 andThr-331 through promoting docking of MAPK to the DEF domain.Phosphorylation on Thr-232, induced by HA-RAS, activates thetranscriptional activity and antagonizes sumoylation.Phosphorylation on Ser-362 by RSK2 in osteoblasts contributes toosteoblast transformation (By similarity). [PTM] Constitutively sumoylated by SUMO1, SUMO2 and SUMO3.Desumoylated by SENP2. Sumoylation requires heterodimerization withJUN and is enhanced by mitogen

stimulation. Sumoylation inhibitsthe AP-1 transcriptional activity and is, itself, inhibited byRas-activated phosphorylation on Thr-232.

Similarity:
Belongs to the bZIP family. Fos subfamily.
Contains 1 bZIP domain.

SWISS:
P01100

Gene ID:
2353

Database links:

Entrez Gene: 2353 Human

Entrez Gene: 14281 Mouse

Entrez Gene: 314322 Rat

Omim: 164810 Human

SwissProt: P01100 Human

SwissProt: P01101 Mouse

SwissProt: P12841 Rat

Unigene: 246513 Mouse

Unigene: 103750 Rat

The function of c- fos is mainly applied in the research of various malignant tumors, including esophageal cancer, nasopharyngeal carcinoma, breast cancer, colon cancer, and encephalopathy.

The c- fos proto- oncogene and its protein product are not only involved in the normal cell growth and differentiation, but also participate in intracellular signal transduction and cellular energy metabolism. It regulates cell proliferation, differentiation, and transformation, and plays an extremely fundamental and important role in life activities.

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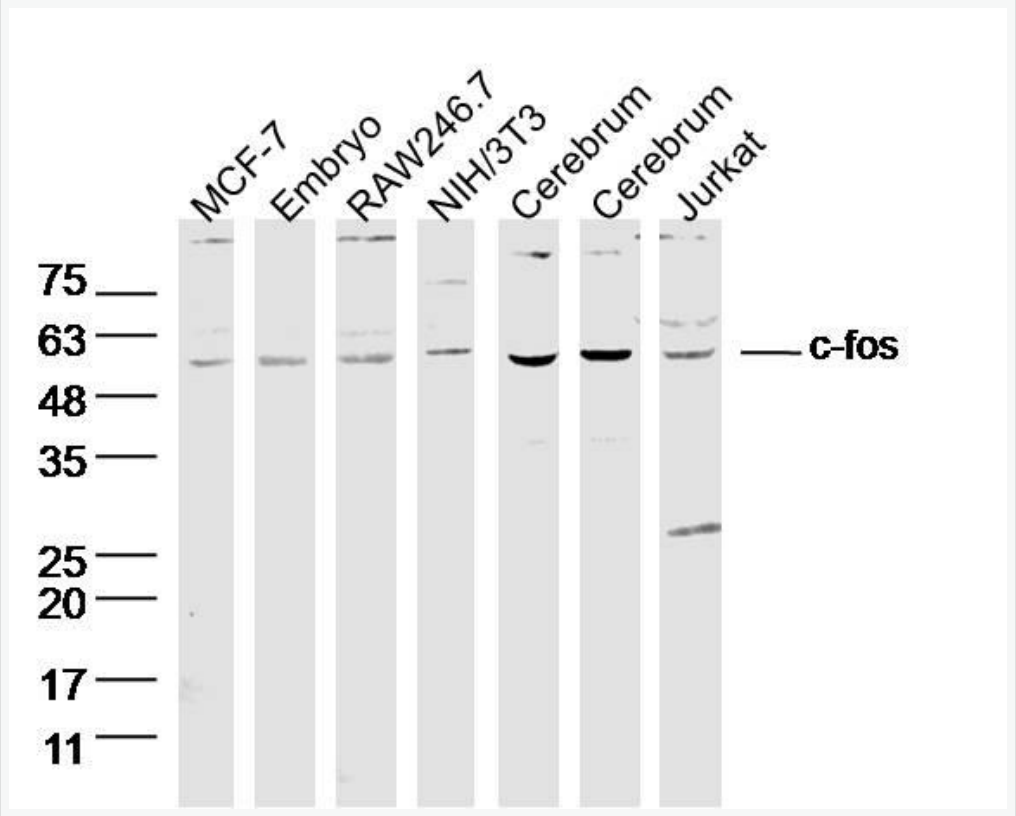
Product Picture



MCF-7 Cell (Human) Lysate at 30 ug

Embryo(Mouse) Lysate at 40 ug

RAW246.7(Mouse)Lysate at 30 ug

NIH/3T3(Mouse)Lysate at 30 ug

Cerebrum(Mouse) Lysate at 40 ug

Cerebrum(Rat) Lysate at 40 ug

Primary: Anti- c-fos (SL0469R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 41kD

Observed band size: 55KD

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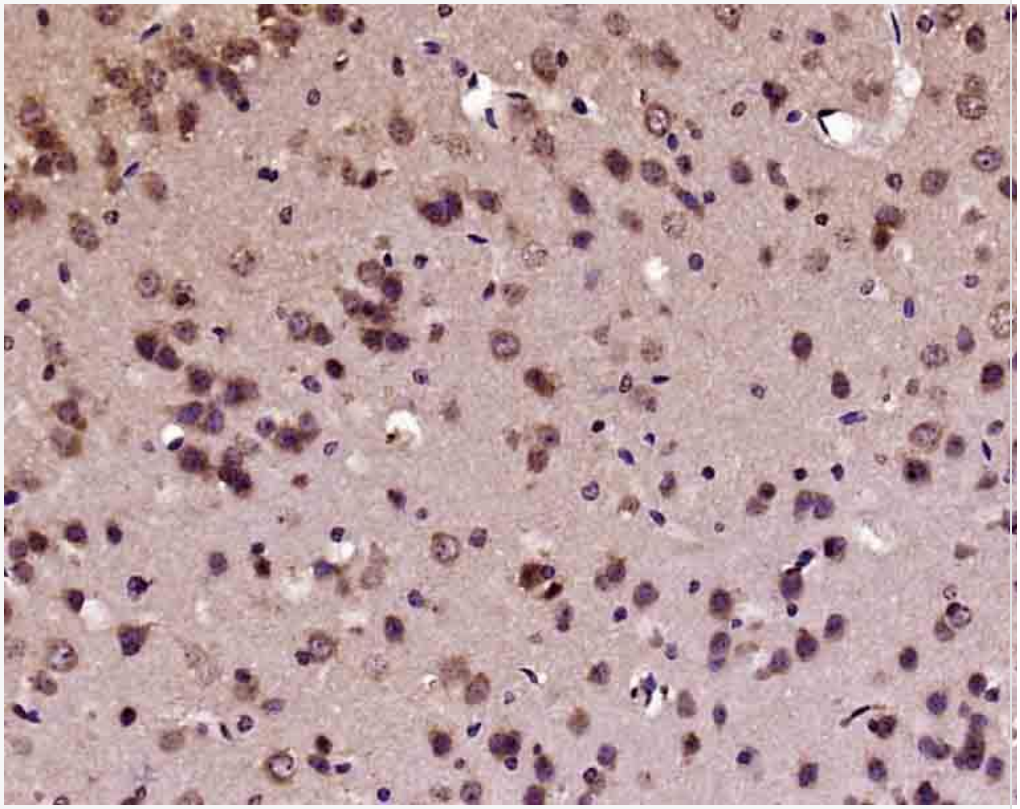

Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (c-fos) Polyclonal Antibody, Unconjugated (SL0469R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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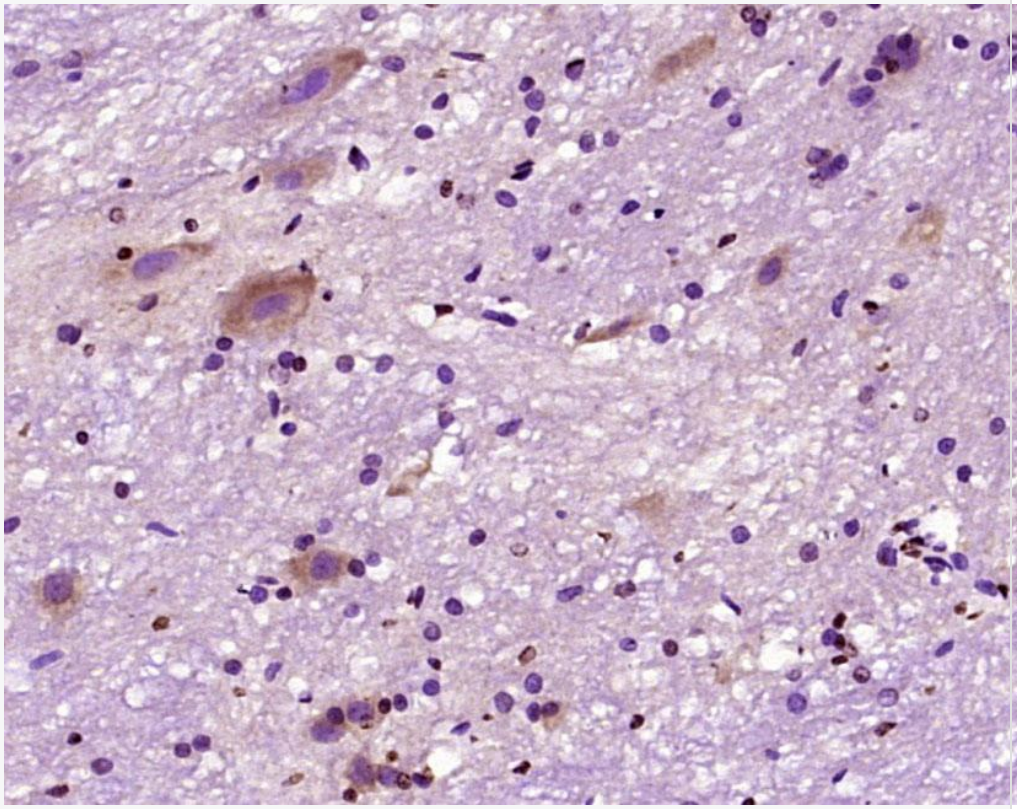

Paraformaldehyde-fixed, paraffin embedded (Rat spinal cord); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (c-fos) Polyclonal Antibody, Unconjugated (SL0469R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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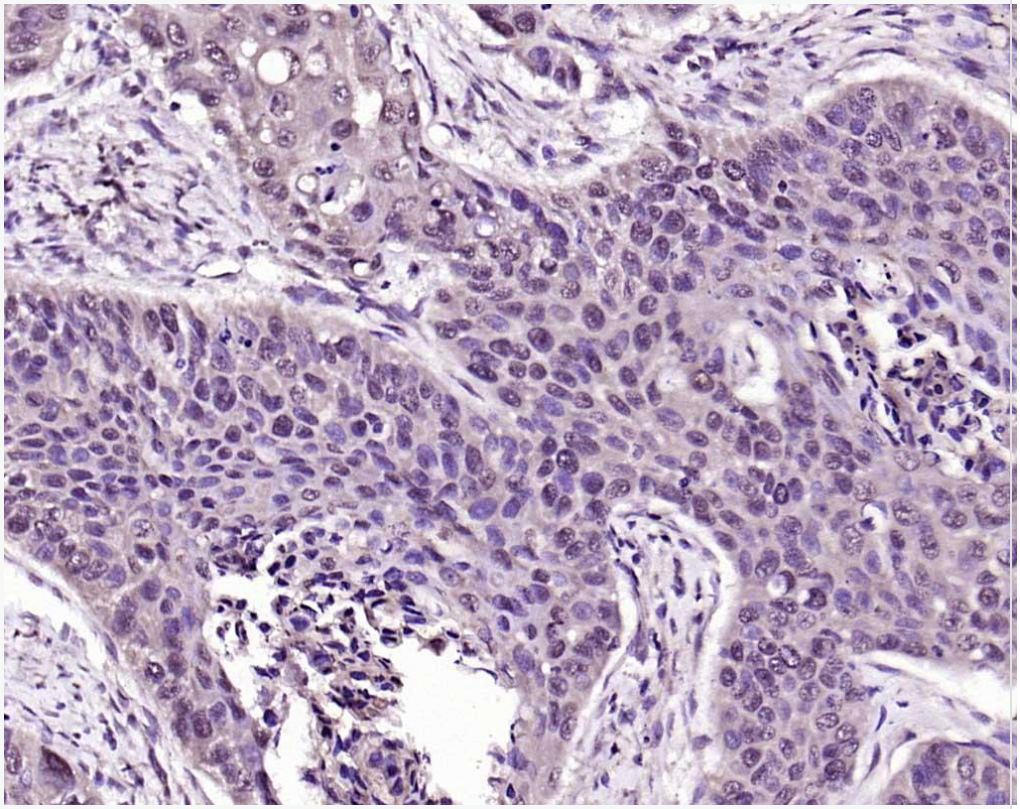

Paraformaldehyde-fixed, paraffin embedded (Human esophageal cancer); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (c-fos) Polyclonal Antibody, Unconjugated (SL0469R) at 1:2000 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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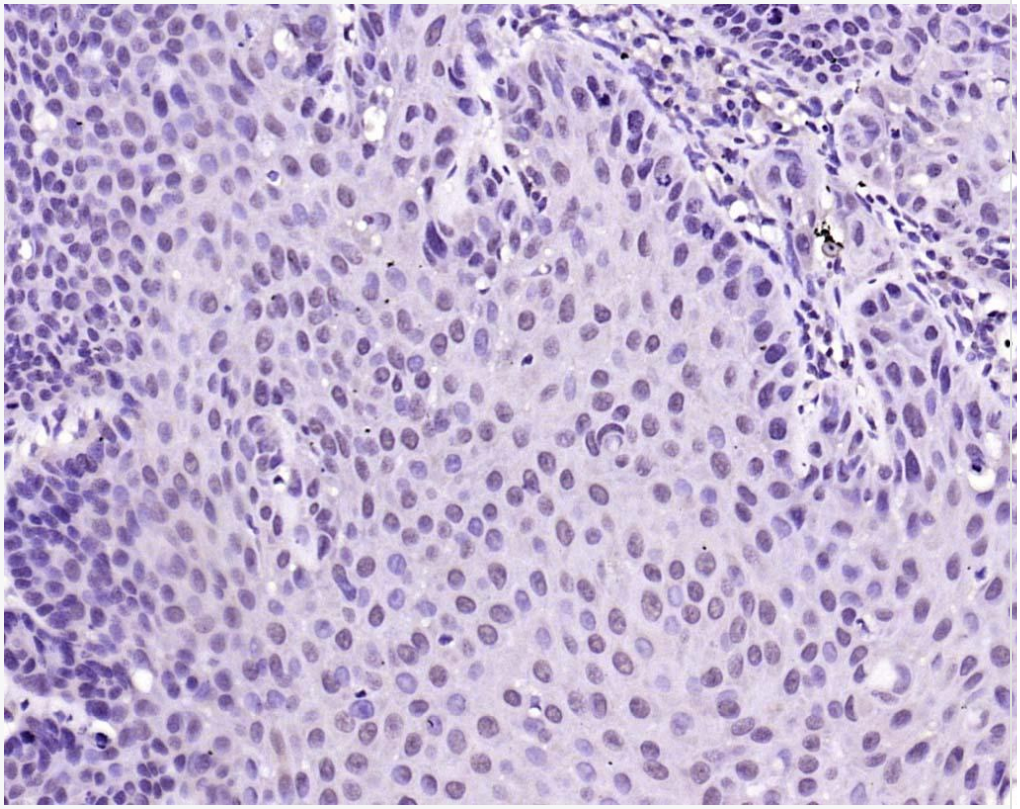

Paraformaldehyde-fixed, paraffin embedded (human laryngeal carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (c-fos) Polyclonal Antibody, Unconjugated (SL0469R) at 1:2000 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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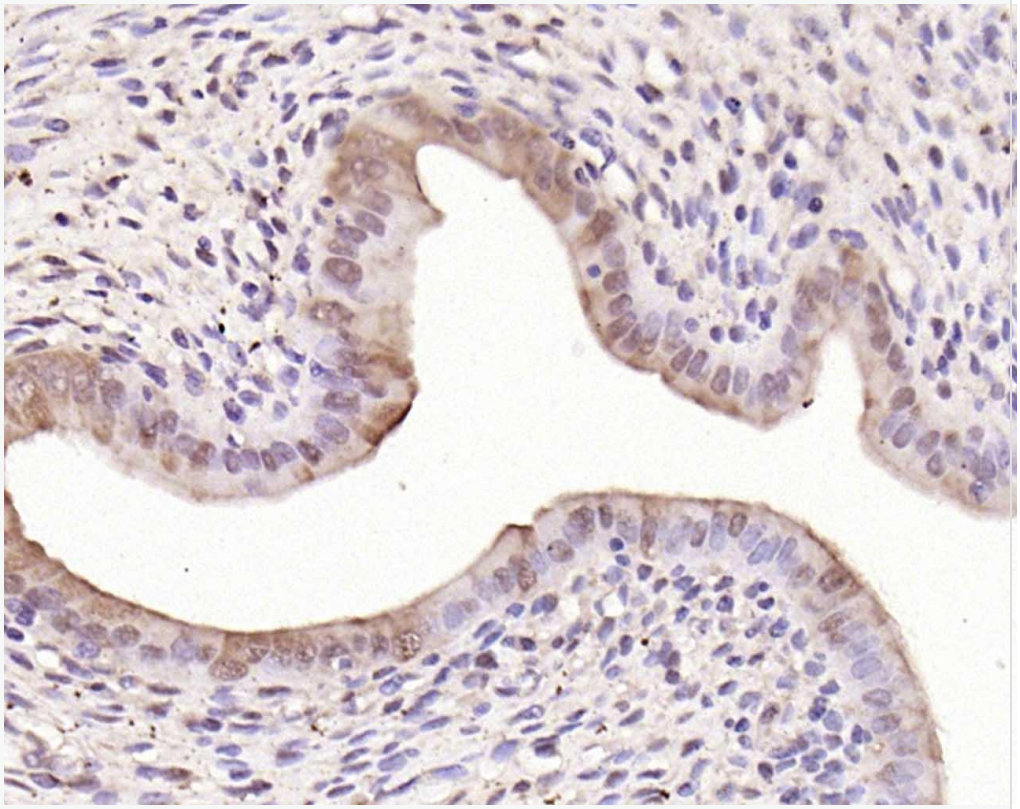

Paraformaldehyde-fixed, paraffin embedded (rat uterus); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (c-fos) Polyclonal Antibody, Unconjugated (SL0469R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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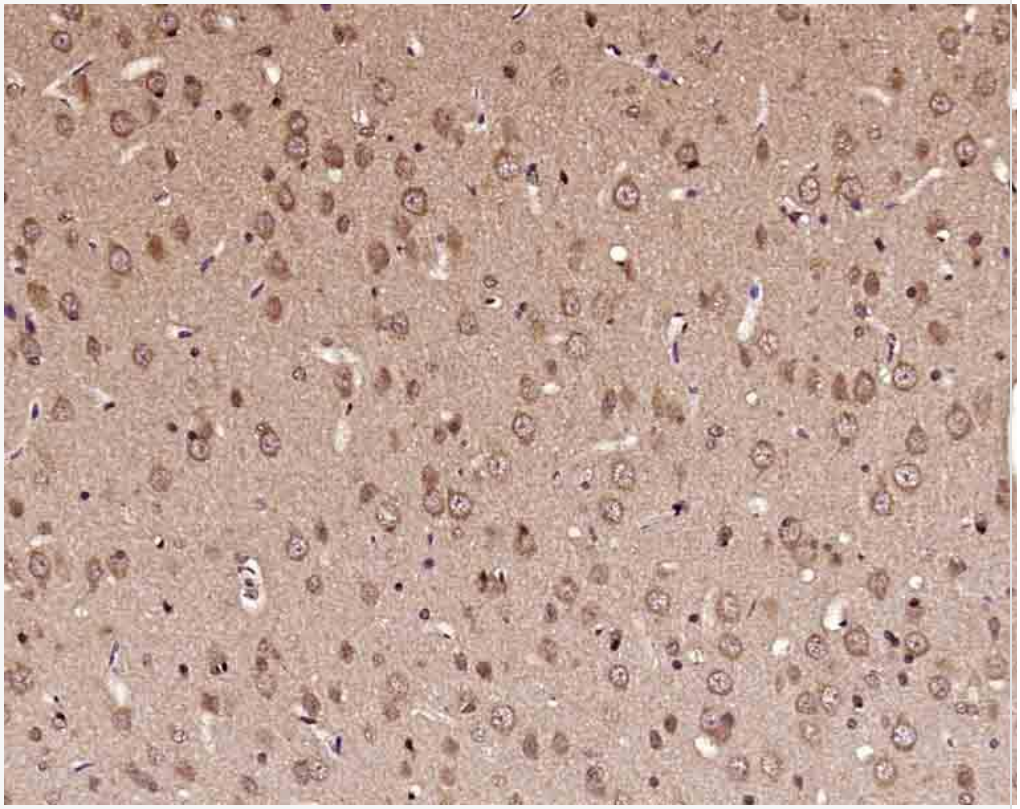

Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (c-fos) Polyclonal Antibody, Unconjugated (SL0469R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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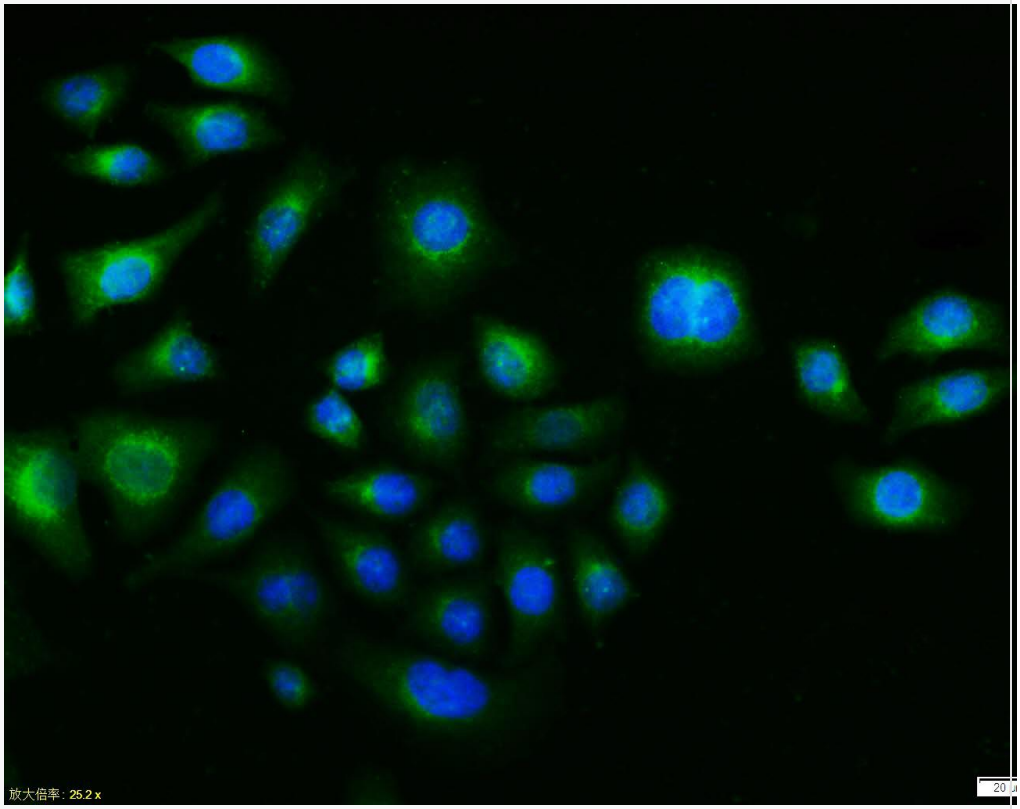

Tissue/cell:MCF7 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (c-fos) polyclonal Antibody, Unconjugated (SL0469R) 1:100, 90 minutes at 37°C; followed by a FITC conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

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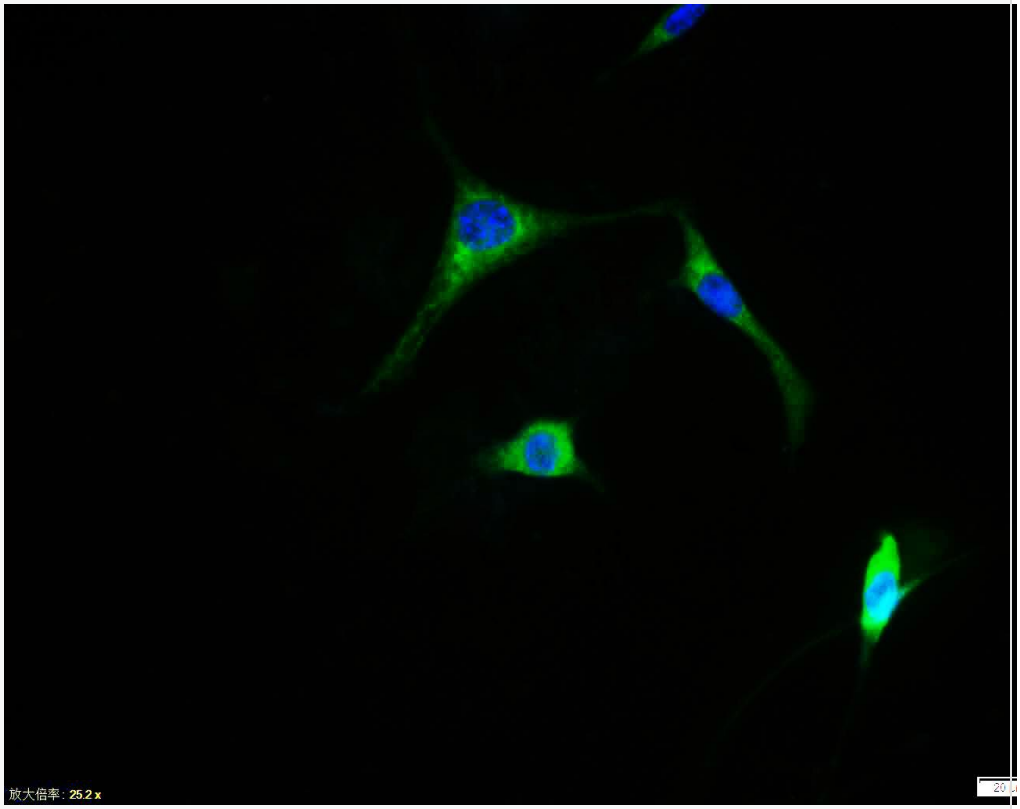

Tissue/cell: A431 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (c-fos) polyclonal Antibody, Unconjugated (SL0469R) 1:100, 90 minutes at 37°C; followed by a FITC conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.