Anti-Human/Mouse c-Fos Antibody [PSH17-93] - BSA and Azide free (Detector)

HA723958

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	ELISA(Det)
Clone number:	PSH17-93

Description: Protein c-Fos is a proto-oncogene that is the human homolog of the retroviral oncogene v-fos. It is encoded in humans by the FOS gene. It was first discovered in rat fibroblasts as the transforming gene of the FBJ MSV (Finkel–Biskis–Jinkins murine osteogenic sarcoma virus). It is a part of a bigger Fos family of transcription factors which includes c-Fos, FosB, Fra-1 and Fra-2. It has been mapped to chromosome region 14q21→q31. c-Fos encodes a 62 kDa protein, which forms heterodimer with c-jun (part of Jun family of transcription factors), resulting in the formation of AP-1 (Activator Protein-1) complex which binds DNA at AP-1 specific sites at the promoter and enhancer regions of target genes and converts extracellular signals into changes of gene expression. It plays an important role in many cellular functions and has been found to be overexpressed in a variety of cancers.

Immunogen: Recombinant protein within Human c-Fos aa 205-380 (HA211326).

Positive control: Recombinant Human c-Fos protein (HA211326).

Subcellular location: Nucleus, Endoplasmic reticulum, Cytoplasm, cytosol.

Database links: SwissProt: P01100 Human | P01101 Mouse

Recommended Dilutions:

ELISA(Det) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH17-92] to Human/Mouse c-Fos antibody (Capture) (HA723957) and Recombinant Human c-Fos protein (HA211326) as the standard. The reference range value is 11.7-3,000 pg/mL.

Storage Buffer: 1*PBS (pH7.4).

Storage Instruction: Store at 2-8℃. Avoid freeze.

Purity: Protein A affinity purified.

Images

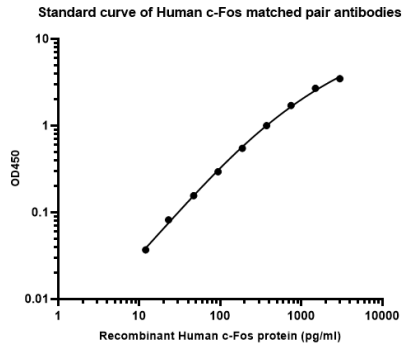

Fig1: Sandwich ELISA analysis of Human c-Fos matched pair antibodies

Capture: HA723957, Human/Mouse c-Fos Rabbit mAb [PSH17-92]
Detector: HA723958, Human/Mouse c-Fos Rabbit mAb [PSH17-93]

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA723957) diluted in carbonate/bicarbonate buffer, at a concentration of 2ug/ml overnight at 4℃. Wells of the plate were washed, blocked with 150 µl 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human c-Fos protein (HA211326) starting from 3000 pg/ml to 0 pg/ml and detect antibody (HA723958, Biotin, 0.2 µg/ml) for 1 hour at 30℃ with shaking. Then the plate was washed and incubated with 100 µl per well of SA-HRP for 0.5 hour at 30℃ with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

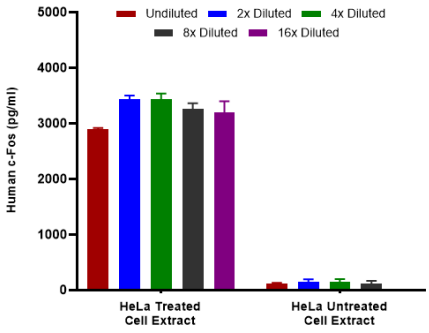

Fig2: Interpolated concentrations of native c-Fos in HeLa treated or untreated with starve 16 hours then TPA for 4 hours cell extract samples based on a 1000 µg/ml extract load.

Capture: HA723957, Human/Mouse c-Fos Rabbit mAb [PSH17-92]
Detector: HA723958, Human/Mouse c-Fos Rabbit mAb [PSH17-93]

Interpolated concentration of native c-Fos was measured in duplicate at different sample concentrations and interpolated from the c-Fos standard curves. The interpolated dilution factor corrected values were plotted (mean +/- SD, n=2). The mean c-Fos concentration was determined to be 3,243 pg/mL in HeLa treated and 139 pg/mL in untreated HeLa cell extract.

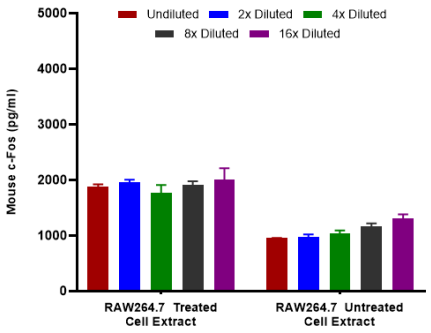

Fig3: Interpolated concentrations of native c-Fos in RAW264.7 treated or untreated with starve 16 hours then TPA for 4 hours cell extract samples based on a 1000 µg/ml extract load.

Capture: HA723957, Human/Mouse c-Fos Rabbit mAb [PSH17-92]
Detector: HA723958, Human/Mouse c-Fos Rabbit mAb [PSH17-93]

Interpolated concentration of native c-Fos was measured in duplicate at different sample concentrations and interpolated from the c-Fos standard curves. The interpolated dilution factor corrected values were plotted (mean +/- SD, n=2). The mean c-Fos concentration was determined to be 1,907 pg/mL in RAW264.7 treated and 1,090 pg/mL in untreated RAW264.7 cell extract.

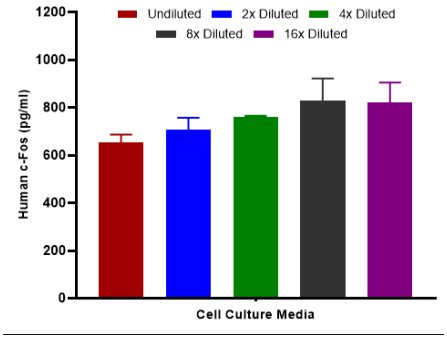

Fig4: Interpolated concentrations of spiked c-Fos in cell culture media samples.

Capture: HA723957, Human/Mouse c-Fos Rabbit mAb [PSH17-92]
Detector: HA723958, Human/Mouse c-Fos Rabbit mAb [PSH17-93]

The concentrations of c-Fos were measured in duplicates, interpolated from the c-Fos standard curves and corrected for sample dilution. Diluted samples are as follows: 50% cell culture media with FBS. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Matsuoka K et al. Metabolic rewiring controlled by c-Fos governs cartilage integrity in osteoarthritis. Ann Rheum Dis. 2023 Sep
2. Osada N et al. c-FOS is an integral component of the IKZF1 transactivator complex and mediates lenalidomide resistance in multiple myeloma. Clin Transl Med. 2023 Aug