SANTA CRUZ BIOTECHNOLOGY, INC.

ISGF-3γ p48 (H-10): sc-365893

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Interferon signaling to the cell nucleus operates through phosphorylation on tyrosine of proteins that have been designated Stats (signal transducers and activators of transcription). The first members of this family to be described include Stat1α p91, Stat1β p84 (a form of p91 that lacks 38 COOH-terminal amino acids) and Stat2 p113. Other members of the family include Stat3, which becomes activated through phosphorylation on tyrosine as a DNA binding protein in response to epidermal growth factor (EGF) and interleukin-6 (IL-6) but not interferon γ (IFN-γ) and Stat4. Stat1α p91 (or Stat1β p84) and p113 form a complex (designated ISGF-3) with p48, a protein that has been shown by sequence analysis to be a member of the interferon regulatory (IRF) family of DNA binding proteins.

CHROMOSOMAL LOCATION

Genetic locus: IRF9 (human) mapping to 14q12.

SOURCE

ISGF-3γ p48 (H-10) is a mouse monoclonal antibody raised against amino acids 113-255 of ISGF-3γ p48 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-365893 X, 200 µg/0.1 ml.

ISGF-3γ p48 (H-10) is available conjugated to agarose (sc-365893 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365893 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365893 PE), fluorescein (sc-365893 FITC), Alexa Fluor® 488 (sc-365893 AF488), Alexa Fluor® 546 (sc-365893 AF546), Alexa Fluor® 594 (sc-365893 AF594) or Alexa Fluor® 647 (sc-365893 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365893 AF680) or Alexa Fluor® 790 (sc-365893 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ISGF-3γ p48 (H-10) is recommended for detection of ISGF-3γ p48 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ISGF-3γ p48 siRNA (h): sc-38013, ISGF-3γ p48 shRNA Plasmid (h): sc-38013-SH and ISGF-3γ p48 shRNA (h) Lentiviral Particles: sc-38013-V.

ISGF-3γ p48 (H-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

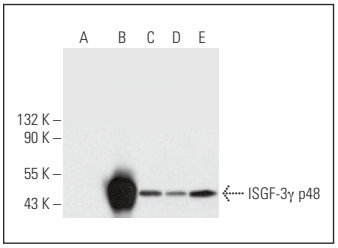
Molecular Weight of ISGF-3γ p48: 48 kDa.

Positive Controls: ISGF-3γ p48 (h): 293T Lysate: sc-115734, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

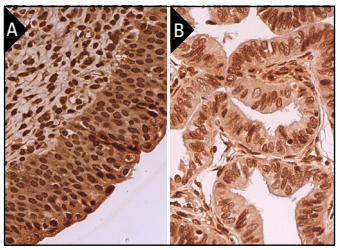
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



ISGF-3γ p48 (H-10): sc-365893. Western blot analysis of ISGF-3γ p48 expression in non-transfected 293T: sc-117752 (**A**), human ISGF-3γ p48 transfected 293T: sc-115734 (**B**), Hep G2 (**C**), HeLa (**D**) and A549 (**E**) whole cell lysates.



ISGF-3γ p48 (H-10): sc-365893. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing nuclear and cytoplasmic staining of urothelial cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing nuclear and cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Hernandez, N., et al. 2018. Life-threatening influenza pneumonitis in a child with inherited IRF9 deficiency. J. Exp. Med. 215: 2567-2585.
2. Le-Trilling, V.T.K., et al. 2020. The human cytomegalovirus pUL145 isoforms act as viral DDB1-Cullin-associated factors to instruct host protein degradation to impede innate immunity. Cell Rep. 30: 2248-2260.e5.
3. Vandsemb, E.N., et al. 2021. PRL-3 induces a positive signaling circuit between glycolysis and activation of Stat1/2. FEBS J. 288: 6700-6715.
4. Xiang, Q., et al. 2022. STAT and Janus kinase targeting by human herpesvirus 8 interferon regulatory factor in the suppression of type-I interferon signaling. PLoS Pathog. 18: e1010676.
5. Damous, L.L., et al. 2022. Gene expression profile in experimental frozen-thawed ovarian grafts treated with scaffold-base delivery of adipose tissue-derived stem cells. Clinics 77: 100066.
6. Chen, J., et al. 2022. Angiotensin-converting enzyme 2 potentiates SARS-CoV-2 infection by antagonizing type I interferon induction and its down-stream signaling pathway. mSphere 7: e0021122.
7. Drury, S., et al. 2023. Evolution and emergence of primate specific interferon regulatory factor 9. J. Med. Virol. 95: e28521.
8. Song, L., et al. 2023. The main protease of SARS-CoV-2 cleaves histone deacetylases and DCP1A, attenuating the immune defense of the interferon-stimulated genes. J. Biol. Chem. 299: 102990.
9. García-Vílchez, R., et al. 2023. METTL1 promotes tumorigenesis through tRNA-derived fragment biogenesis in prostate cancer. Mol. Cancer 22: 119.

RESEARCH USE

For research use only, not for use in diagnostic procedures.