

ICSBP (S-15): sc-79536

BACKGROUND

ICSBP (interferon (IFN) consensus sequence-binding protein, interferon regulatory factor 8; IRF-8) is a transcription factor that is important for IFN- γ -mediated signaling during dendritic cell and macrophage differentiation. ICSBP physically interacts with TRAF6 (between amino acid residues 356 and 305), and this interaction of ICSBP with TRAF6 modulates TLR signaling and may contribute to the cross-talk between IFN- γ and TLR signal pathways. ICSBP antagonizes Bcr/Abl by downregulation of Bcl-2. ICSBP is known to interact with chromatin and bind PU.1 in macrophages. ICSBP belongs to the IFN regulatory factor (IRF) family that also includes IRF-1, IRF-2 and ISGF-3. These proteins are composed of a conserved DNA-binding domain in the N-terminal region and a divergent C-terminal region that serves as the regulatory domain. The IRF family proteins bind to the IFN-stimulated response element (ISRE) and regulate expression of IFN- α and IFN- β .

REFERENCES

- Burchert, A., et al. 2004. Interferon consensus sequence binding protein (ICSBP; IRF-8) antagonizes Bcr/Abl and downregulates Bcl-2. *Blood* 103: 3480-3489.
- Schmidt, M., et al. 2004. The interferon regulatory factor ICSBP/IRF-8 in combination with PU.1 upregulates expression of tumor suppressor p15(Ink4b) in murine myeloid cells. *Blood* 103: 4142-4149.
- Laricchia-Robbio, L., et al. 2005. Partner-regulated interaction of IFN regulatory factor 8 with chromatin visualized in live macrophages. *Proc. Natl. Acad. Sci. USA* 102: 14368-14373.
- Xiong, H., et al. 2005. Ubiquitin-dependent degradation of interferon regulatory factor-8 mediated by Cbl downregulates interleukin-12 expression. *J. Biol. Chem.* 280: 23531-23539.
- Tamura, T., et al. 2005. IFN regulatory factor-4 and -8 govern dendritic cell subset development and their functional diversity. *J. Immunol.* 174: 2573-2581.
- Nakano, N., et al. 2005. Analysis of PU.1/ICSBP (IRF-8) complex formation with various PU.1 mutants: molecular cloning of rat ICSBP (IRF-8) cDNA. *Immunogenetics* 56: 871-877.
- Dror, N., et al. 2006. Identification of IRF-8 and IRF-1 target genes in activated macrophages. *Mol. Immunol.* 44: 338-346.
- Mattei, F., et al. 2006. ICSBP/IRF-8 differentially regulates antigen uptake during dendritic cell development and affects antigen presentation to CD4⁺ T cells. *Blood* 108: 609-617.
- Zhao, J., et al. 2006. IRF-8/interferon (IFN) consensus sequence-binding protein is involved in toll-like receptor (TLR) signaling and contributes to the cross-talk between TLR and IFN- γ signaling pathways. *J. Biol. Chem.* 281: 10073-10080.

CHROMOSOMAL LOCATION

Genetic locus: IRF8 (human) mapping to 16q24.1; Irf8 (mouse) mapping to 8 E1.

RESEARCH USE

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

SOURCE

ICSBP (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ICSBP of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79536 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-79536 X, 200 μ g/0.1 ml.

APPLICATIONS

ICSBP (S-15) is recommended for detection of ICSBP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ICSBP (S-15) is also recommended for detection of ICSBP in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ICSBP siRNA (h): sc-35630, ICSBP siRNA (m): sc-35631, ICSBP shRNA Plasmid (h): sc-35630-SH, ICSBP shRNA Plasmid (m): sc-35631-SH, ICSBP shRNA (h) Lentiviral Particles: sc-35630-V and ICSBP shRNA (m) Lentiviral Particles: sc-35631-V.

ICSBP (S-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ICSBP: 48 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or RAW 264.7 whole cell lysate: sc-2211.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.