

STAM2 (F-11): sc-365600

BACKGROUND

Cytokine stimulation of the IL-2 receptor leads to the tyrosine phosphorylation of a number of cellular proteins and to the induction of various transcription factors including c-Fos and c-Myc. The signal transducing adapter molecule, STAM, is speculated to play a role in c-Myc induction by various cytokines. STAM contains an SH3 (Src homology 3) motif as well as an immunoreceptor tyrosine-based activation (ITAM) motif, both of which appear to be required for c-Myc induction in response to IL-2 and GM-CSF. STAM associates with JAK3 and JAK2 via its ITAM region, and it is tyrosine phosphorylated by JAK3 and JAK2 after stimulation with IL-2 and GM-CSF, respectively. STAM2, also known as Hbp, is a protein that is highly related to STAM. Similar to STAM, STAM2 functions downstream of JAK kinases and can be phosphorylated in response to cytokines. Due to alternative splicing events, two isoforms of STAM2 exist, namely STAM2A and STAM2B.

REFERENCES

- Miyazaki, T., et al. 1994. Functional activation of JAK1 and JAK3 by selective association with IL-2 receptor subunits. *Science* 266: 1045-1047.
- Taniguchi, T. 1995. Cytokine signaling through nonreceptor protein tyrosine kinases. *Science* 268: 251-255.
- Ihle, J.N., et al. 1995. Signaling through the hematopoietic cytokine receptors. *Annu. Rev. Immunol.* 13: 369-398.
- Minami, Y., et al. 1995. Protein tyrosine kinase Syk is associated with and activated by the IL-2 receptors: possible link with the c-Myc induction pathway. *Immunity* 2: 89-100.
- Kawahara, A., et al. 1995. Critical role for the interleukin 2 (IL-2) receptor γ -chain-associated JAK3 in the IL-2 induced c-Fos and c-Myc, but not Bcl-2, gene induction. *Proc. Natl. Acad. Sci. USA* 92: 8724-8728.

CHROMOSOMAL LOCATION

Genetic locus: STAM2 (human) mapping to 2q23.3; Stam2 (mouse) mapping to 2 C1.1.

SOURCE

STAM2 (F-11) is a mouse monoclonal antibody raised against amino acids 351-525 mapping at the C-terminus of STAM2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STAM2 (F-11) is available conjugated to agarose (sc-365600 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365600 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365600 PE), fluorescein (sc-365600 FITC), Alexa Fluor[®] 488 (sc-365600 AF488), Alexa Fluor[®] 546 (sc-365600 AF546), Alexa Fluor[®] 594 (sc-365600 AF594) or Alexa Fluor[®] 647 (sc-365600 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365600 AF680) or Alexa Fluor[®] 790 (sc-365600 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

STAM2 (F-11) is recommended for detection of STAM2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

Suitable for use as control antibody for STAM2 siRNA (h): sc-76584, STAM2 siRNA (m): sc-76585, STAM2 shRNA Plasmid (h): sc-76584-SH, STAM2 shRNA Plasmid (m): sc-76585-SH, STAM2 shRNA (h) Lentiviral Particles: sc-76584-V and STAM2 shRNA (m) Lentiviral Particles: sc-76585-V.

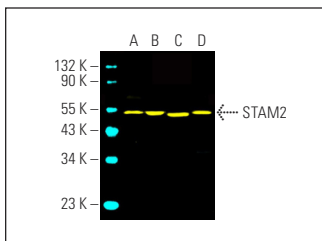
Molecular Weight of STAM2: 58 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Caki-1 cell lysate: sc-2224 or SK-N-MC cell lysate: sc-2237.

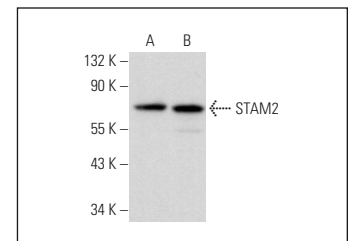
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



STAM2 (F-11) Alexa Fluor[®] 488: sc-365600 AF488. Direct fluorescent western blot analysis of STAM2 expression in SK-N-MC (A), Hep G2 (B), 3T3-L1 (C) and Caki-1 (D) whole cell lysates. Blocked with UltraCruz[®] Blocking Reagent: sc-516214. Cruz Marker[™] Molecular Weight Standards detected with Cruz Marker[™] MW Tag-Alexa Fluor[®] 647: sc-516791.



STAM2 (F-11): sc-365600. Western blot analysis of STAM2 expression in SK-N-MC (A) and Hep G2 (B) whole cell lysates.

STORAGE

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

RESEARCH USE

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