

STAM2 (H-175): sc-98681

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

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- 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.
- Takeshita, T., et al. 1996. Cloning of a novel signal-transducing adaptor molecule containing an SH3 domain and ITAM. *Biochem. Biophys. Res. Commun.* 225: 1035-1039.
- Takeshita, T., et al. 1997. STAM, signal transducing adaptor molecule, is associated with Janus kinases and involved in signaling for cell growth and c-Myc induction. *Immunity* 6: 449-457.
- Kanazawa, C., et al. 2003. Effects of deficiencies of STAMs and Hrs, mammalian class E Vps proteins, on receptor downregulation. *Biochem. Biophys. Res. Commun.* 309: 848-856.

CHROMOSOMAL LOCATION

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

SOURCE

STAM2 (H-175) is a rabbit polyclonal antibody raised against amino acids 351-525 mapping at the C-terminus of STAM2 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.

APPLICATIONS

STAM2 (H-175) is recommended for detection of STAM2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

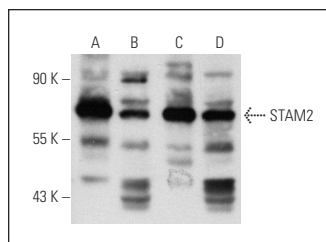
STAM2 (H-175) is also recommended for detection of STAM2 in additional species, including equine and canine.

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.

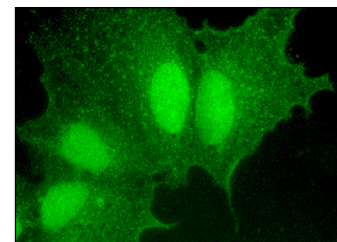
Molecular Weight of STAM2: 58 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, SK-N-MC cell lysate: sc-2237 or Hep G2 cell lysate: sc-2227.

DATA



STAM2 (H-175): sc-98681. Western blot analysis of STAM2 expression in Caki-1 (A), HeLa (B), SK-N-MC (C) and Hep G2 (D) whole cell lysates.



STAM2 (H-175): sc-98681. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic and nuclear localization.

SELECT PRODUCT CITATIONS

- Kapuralin, K., et al. 2012. Neurons and a subset of interstitial cells of Cajal in the enteric nervous system highly express Stam2 gene. *Anat. Rec.* 295: 113-120.

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.


 MONOS
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Try **STAM2 (F-11): sc-365600**, our highly recommended monoclonal alternative to STAM2 (H-175).