## SANTA CRUZ BIOTECHNOLOGY, INC.

# STAM (H-175): sc-33588



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.

#### REFERENCES

- Miyazaki, T., Kawahara, A., Fujii, H., Nakagawa, Y., Minami, Y., Liu, Z.J., Oishi, I., Silvennoinen, O., Witthuhn, B.A., Ihle, J.N. and Taniguchi, T. 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., Whitthuhn, B.A., Quelle, F.W., Yamamoto, K. and Silvennoinen, O. 1995. Signaling through the hematopoietic cytokine receptors. Annu. Rev. Immunol. 13: 369-398.
- Minami, Y., Nakagawa, Y., Kawahara, A., Miyazaki, T., Sada, K., Yamamura, H. and Taniguchi, T. 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., Minami, Y., Miyazaki, T., Ihle, J.N. and Tanaguchi, T. 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., Arita, T., Asao, H., Tanaka, N., Higuchi, M., Kuroda, H., Kaneko, K., Munakata, H., Endo, Y., Fujita, T. and Sugamura, K. 1996. Cloning of a novel signal-transducing adaptor molecule containing an SH3 domain and ITAM. Biochem. Biophys. Res. Commun. 225: 1035-1039.

#### CHROMOSOMAL LOCATION

Genetic locus: STAM (human) mapping to 10p12.33; Stam (mouse) mapping to 2 A1.

## SOURCE

STAM (H-175) is a rabbit polyclonal antibody raised against amino acids 366-540 mapping at the C-terminus of STAM of human origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

STAM (H-175) is recommended for detection of STAM of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

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

Suitable for use as control antibody for STAM siRNA (h): sc-41043, STAM siRNA (m): sc-41044, STAM shRNA Plasmid (h): sc-41043-SH, STAM shRNA Plasmid (m): sc-41044-SH, STAM shRNA (h) Lentiviral Particles: sc-41043-V and STAM shRNA (m) Lentiviral Particles: sc-41044-V.

Molecular Weight of STAM: 70 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MCF7 whole cell lysate: sc-2206 or STAM (m): 293T Lysate: sc-127596.

#### DATA





STAM (H-175): sc-33588. Western blot analysis of STAM expression in HeLa (A), MCF7 (B) and Jurkat (C) whole cell lysates. STAM (H-175): sc-33588. Western blot analysis of STAM expression in non-transfected 2931: sc-117752 (**A**), mouse STAM transfected 2931: sc-127596 (**B**) and HeLa (**C**) whole cell lysates.

#### **RESEARCH USE**

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

## PROTOCOLS

MONOS

Satisfation

Guaranteed

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

#### Try STAM (B-2): sc-133093 or STAM (D-3):

**sc-133092**, our highly recommended monoclonal alternatives to STAM (H-175).