

STAM (B-2): sc-133093

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.

CHROMOSOMAL LOCATION

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

SOURCE

STAM (B-2) is a mouse monoclonal antibody raised against amino acids 366-540 mapping at the C-terminus of STAM of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STAM (B-2) is available conjugated to agarose (sc-133093 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133093 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-133093 PE), fluorescein (sc-133093 FITC), Alexa Fluor[®] 488 (sc-133093 AF488), Alexa Fluor[®] 546 (sc-133093 AF546), Alexa Fluor[®] 594 (sc-133093 AF594) or Alexa Fluor[®] 647 (sc-133093 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-133093 AF680) or Alexa Fluor[®] 790 (sc-133093 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

STAM (B-2) is recommended for detection of STAM of mouse, rat and 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 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.

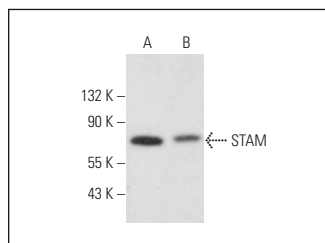
Molecular Weight of STAM: 70 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, NCI-H226 whole cell lysate: sc-364256 or Jurkat whole cell lysate: sc-2204.

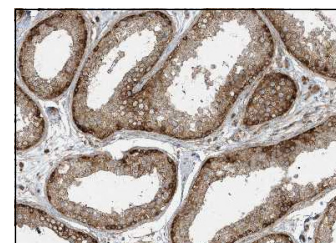
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



STAM (B-2): sc-133093. Western blot analysis of STAM expression in MCF7 (A) and NCI-H226 (B) whole cell lysates.



STAM (B-2): sc-133093. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human testis tissue showing cytoplasmic staining of seminiferous ducts and Leydig cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

- Durcan, T.M., et al. 2014. USP8 regulates mitophagy by removing K6-linked ubiquitin conjugates from parkin. *EMBO J.* 33: 2473-2491.
- Gschweidl, M., et al. 2016. A SPOPL/Cullin-3 ubiquitin ligase complex regulates endocytic trafficking by targeting EPS15 at endosomes. *Elife* 5: e13841.
- Luo, S., et al. 2017. Ubiquitination and dynactin regulate TMEPAI lysosomal trafficking. *Sci. Rep.* 7: 42668.
- Bednash, J.S., et al. 2017. Targeting the deubiquitinase STAMBP inhibits NALP7 inflammasome activity. *Nat. Commun.* 8: 15203.
- Mielcarska, M.B., et al. 2019. Syk and Hrs regulate TLR3-mediated antiviral response in murine astrocytes. *Oxid. Med. Cell. Longev.* 2019: 6927380.
- Xu, H., et al. 2021. STAMBP promotes lung adenocarcinoma metastasis by regulating the EGFR/MAPK signaling pathway. *Neoplasia* 23: 607-623.
- Goldsmith, J., et al. 2022. Brain-derived autophagosome profiling reveals the engulfment of nucleoid-enriched mitochondrial fragments by basal autophagy in neurons. *Neuron* 110: 967-976.e8.

RESEARCH USE

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

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