

BST-2 (E-4): sc-390719



The Power to Question

BACKGROUND

Bone marrow stromal cells act as regulators for B-cell growth and development through their surface molecules and cytokines. Bone marrow stromal antigen-2 (BST-2), also designated CD317 antigen, is a single-pass type II membrane protein. BST-2, which is expressed mainly on synovial cell lines and bone marrow stromal cell lines, is primarily expressed in liver, heart, placenta and lung tissues. BST-2 is thought to be involved in pre-B cell growth. It has been implicated in B cell activation in rheumatoid arthritis.

CHROMOSOMAL LOCATION

Genetic locus: BST2 (human) mapping to 19p13.11; Bst2 (mouse) mapping to 8 B3.3.

SOURCE

BST-2 (E-4) is a mouse monoclonal antibody raised against amino acids 25-159 mapping within an internal region of BST-2 of human origin.

PRODUCT

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

BST-2 (E-4) is available conjugated to agarose (sc-390719 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390719 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390719 PE), fluorescein (sc-390719 FITC), Alexa Fluor® 488 (sc-390719 AF488), Alexa Fluor® 546 (sc-390719 AF546), Alexa Fluor® 594 (sc-390719 AF594) or Alexa Fluor® 647 (sc-390719 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390719 AF680) or Alexa Fluor® 790 (sc-390719 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

BST-2 (E-4) is recommended for detection of BST-2 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 BST-2 siRNA (h): sc-60294, BST-2 siRNA (m): sc-141766, BST-2 shRNA Plasmid (h): sc-60294-SH, BST-2 shRNA Plasmid (m): sc-141766-SH, BST-2 shRNA (h) Lentiviral Particles: sc-60294-V and BST-2 shRNA (m) Lentiviral Particles: sc-141766-V.

Molecular Weight of BST-2: 30-36 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

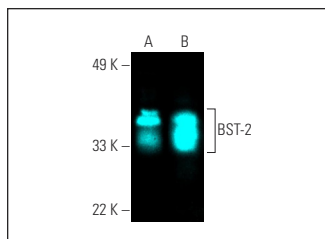
STORAGE

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

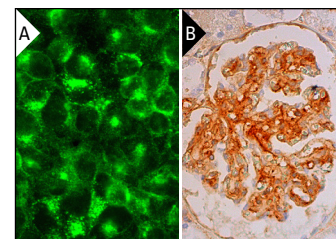
RESEARCH USE

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

DATA



BST-2 (E-4) Alexa Fluor® 647: sc-390719 AF647. Direct fluorescent western blot analysis of BST-2 expression in Jurkat (A) and HeLa (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214.



BST-2 (E-4): sc-390719. Immunofluorescence staining of formalin-fixed HeLa cells showing Golgi apparatus, cytoplasmic and membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic and membrane staining of cells in glomeruli (B).

SELECT PRODUCT CITATIONS

- Wu, X., et al. 2018. Intrinsic immunity shapes viral resistance of stem cells. *Cell* 172: 423-438.e25.
- Deng, H., et al. 2019. CBX6 is negatively regulated by EZH2 and plays a potential tumor suppressor role in breast cancer. *Sci. Rep.* 9: 197.
- Goodwin, C.M., et al. 2019. U_L26 attenuates IKKβ-mediated induction of interferon-stimulated gene (ISG) expression and enhanced protein ISGylation during human cytomegalovirus infection. *J. Virol.* 93: e01052-19.
- Verma, S., et al. 2020. BST-2 regulates interferon γ-dependent decrease in invasion of HTR-8/SVneo cells via Stat1 and Akt signaling pathways and expression of E-cadherin. *Cell Adh. Migr.* 14: 24-41.
- Janaka, S.K., et al. 2021. Selective disruption of SERINC5 antagonism by Nef impairs SIV replication in primary CD4⁺ T cells. *J. Virol.* 95: e01911-20.
- Olety, B., et al. 2021. HIV-1 propagation is highly dependent on basal levels of the restriction factor BST-2. *Sci. Adv.* 7: eabj7398.
- Dust, K., et al. 2022. Human papillomavirus 16 E6 and E7 oncoproteins alter the abundance of proteins associated with DNA damage response, immune signaling and epidermal differentiation. *Viruses* 14: 1764.
- Nyame, P., et al. 2024. A heterocyclic compound inhibits viral release by inducing cell surface BST2/Tetherin/CD317/HM1.24. *J. Biol. Chem.* 300: 107701.

PROTOCOLS

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