SANTA CRUZ BIOTECHNOLOGY, INC.

Sab (H-113): sc-292762

The Power to Question

BACKGROUND

Sab is a Src homology 3 domain (SH3) binding protein that preferentially associates with Bruton's tyrosine kinase, Btk, over other related tyrosine kinases. Btk, together with Itk, Tec, Txk and Bmx, is a member of a family of cytoplasmic tyrosine kinases (the Btk/Tec family). Btk is a B cell specific kinase that is crucial for human and murine B cell development, and its deficiency causes human X-linked agammaglobulinemia and murine X-linked immunodeficiency. Sab serves as a negative regulator of Btk kinase activity and Sab binding to Btk reduces the phosphorylation of Btk substrates and also inhibits Btk-induced autophosphorylation in B cells. The SH3 domain of Sab directly binds to the SH3 domain of Btk and this interaction is essential for the regulatory activity of Sab. Sab is more broadly expressed than Btk, suggesting that Sab may target additional protein kinases that are specific to various tissues.

CHROMOSOMAL LOCATION

Genetic locus: SH3BP5 (human) mapping to 3p25.1; Sh3bp5 (mouse) mapping to 14 B.

SOURCE

Sab (H-113) is a rabbit polyclonal antibody raised against amino acids 45-157 mapping near the N-terminus of Sab of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

Sab (H-113) is recommended for detection of Sab of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Sab (H-113) is also recommended for detection of Sab in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Sab siRNA (h): sc-106528, Sab siRNA (m): sc-153196, Sab shRNA Plasmid (h): sc-106528-SH, Sab shRNA Plasmid (m): sc-153196-SH, Sab shRNA (h) Lentiviral Particles: sc-106528-V and Sab shRNA (m) Lentiviral Particles: sc-153196-V.

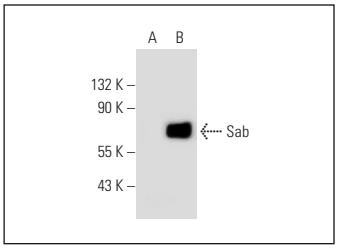
Molecular Weight of Sab: 70 kDa.

Positive Controls: Sab (h2): 293T Lysate: sc-171068, Raji whole cell lysate: sc-364236 or A-431 whole cell lysate: sc-2201.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Sab (H-113): sc-292762. Western blot analysis of Sab expression in non-transfected: sc-117752 (**A**) and human Sab transfected: sc-171068 (**B**) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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