

BBS5 (B-11): sc-515331

BACKGROUND

Bardet-Biedl syndrome (BBS) is a pleiotropic genetic disorder characterized by obesity, photoreceptor degeneration, polydactyly, hypogenitalism, renal abnormalities, and developmental delay. Other associated clinical findings in BBS patients include diabetes, hypertension and congenital heart defects. BBS is a heterogeneous disorder; BBS genes map to eight genetic loci and encode eight proteins, BBS1-BBS8. Five BBS genes encode basal body or cilia proteins, suggesting that BBS is a ciliary dysfunction disorder. BBS5 localizes to ciliary basal bodies and is a member of the basal body/flagellar proteome. It plays a role in flagellar and basal body assembly and function. A mutation or loss of BBS5 may be correlated with photoreceptor degeneration.

CHROMOSOMAL LOCATION

Genetic locus: BBS5 (human) mapping to 2q31.1; Bbs5 (mouse) mapping to 2 C2.

SOURCE

BBS5 (B-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 23-46 near the N-terminus of BBS5 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-515331 X, 200 µg/0.1 ml.

BBS5 (B-11) is available conjugated to agarose (sc-515331 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515331 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515331 PE), fluorescein (sc-515331 FITC), Alexa Fluor® 488 (sc-515331 AF488), Alexa Fluor® 546 (sc-515331 AF546), Alexa Fluor® 594 (sc-515331 AF594) or Alexa Fluor® 647 (sc-515331 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515331 AF680) or Alexa Fluor® 790 (sc-515331 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

BBS5 (B-11) is recommended for detection of BBS5 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 BBS5 siRNA (h): sc-72164, BBS5 siRNA (m): sc-72165, BBS5 shRNA Plasmid (h): sc-72164-SH, BBS5 shRNA Plasmid (m): sc-72165-SH, BBS5 shRNA (h) Lentiviral Particles: sc-72164-V and BBS5 shRNA (m) Lentiviral Particles: sc-72165-V.

BBS5 (B-11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

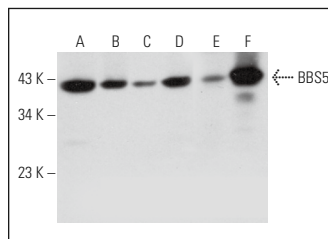
Molecular Weight of BBS5: 39 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, LADMAC whole cell lysate: sc-364189 or human heart extract: sc-363763.

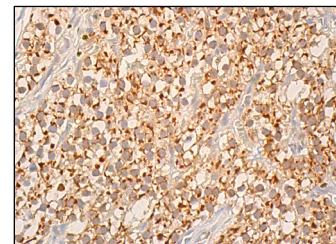
STORAGE

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

DATA



BBS5 (B-11): sc-515331. Western blot analysis of BBS5 expression in LADMAC (A), HEK293T (B), Hep G2 (C) and SK-MEL-28 (D) whole cell lysates and human heart (E) and human testis (F) tissue extracts.



BBS5 (B-11): sc-515331. Immunoperoxidase staining of formalin fixed, paraffin-embedded human parathyroid gland tissue showing cytoplasmic staining of glandular cells. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214. Detected with m-IgGκ BP-B: sc-516142 and ImmunoCruz® ABC Kit: sc-516216.

SELECT PRODUCT CITATIONS

- Hsu, Y., et al. 2017. BBSome function is required for both the morphogenesis and maintenance of the photoreceptor outer segment. *PLoS Genet.* 13: e1007057.
- Datta, P., et al. 2019. The Myosin-tail homology domain of centrosomal protein 290 is essential for protein confinement between the inner and outer segments in photoreceptors. *J. Biol. Chem.* 294: 19119-19136.
- Desai, P.B., et al. 2020. Ubiquitin links smoothened to intraflagellar transport to regulate Hedgehog signaling. *J. Cell Biol.* 219: e201912104.
- Prasai, A., et al. 2020. The BBSome assembly is spatially controlled by BBS1 and BBS4 in human cells. *J. Biol. Chem.* 295: 14279-14290.
- Hsu, Y., et al. 2021. Photoreceptor cilia, in contrast to primary cilia, grant entry to a partially assembled BBSome. *Hum. Mol. Genet.* 30: 87-102.
- Guo, D.F., et al. 2023. The BBSome regulates mitochondria dynamics and function. *Mol. Metab.* 67: 101654.

RESEARCH USE

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

PROTOCOLS

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

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