SANTA CRUZ BIOTECHNOLOGY, INC.

BAF170 (G-12): sc-166237

BACKGROUND

The SWI/SNF complex is involved in the activation of transcription via the remodeling of nucleosome structure in an ATP-dependent manner. Brm (also designated SNF1 or SNF2α) and Brg-1 (also designated SNF2 or SNF2β) are the ATPase subunits of the mammalian SWI/SNF complex. Brm, Brg-1, Ini1 (integrase interactor 1, also designated SNF5), BAF155 (also designated SRG3) and BAF170 are thought to comprise the functional core of the SWI/SNF complex. Addition of Ini1, BAF155 and BAF170 to Brg-1 appears to increase remodeling activity. Other complex subunits are thought to play regulatory roles. hSNF2L and hSNF2H both appear to be homologs of *Drosophila* ISWI, a Brm related ATPase that is present in chromatin remodeling complexes other than SWI/SNF, including the NURF (nucleosome remodeling factor).

CHROMOSOMAL LOCATION

Genetic locus: SMARCC2 (human) mapping to 12q13.2; Smarcc2 (mouse) mapping to 10 D3.

SOURCE

BAF170 (G-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1166-1208 at the C-terminus of BAF170 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 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-166237 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-166237 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

BAF170 (G-12) is recommended for detection of BAF170 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).

BAF170 (G-12) is also recommended for detection of BAF170 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for BAF170 siRNA (h): sc-29782, BAF170 siRNA (m): sc-29783, BAF170 shRNA Plasmid (h): sc-29782-SH, BAF170 shRNA Plasmid (m): sc-29783-SH, BAF170 shRNA (h) Lentiviral Particles: sc-29782-V and BAF170 shRNA (m) Lentiviral Particles: sc-29783-V.

BAF170 (G-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

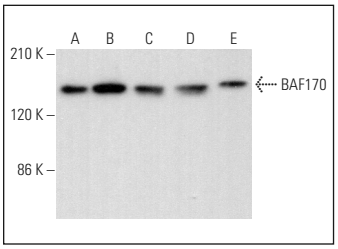
Molecular Weight of BAF170: 170 kDa.

Positive Controls: K-562 nuclear extract: sc-2130, WEHI-231 whole cell lysate: sc-2213 or SW480 nuclear extract: sc-2155.

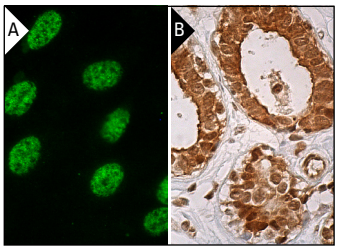
RECOMMENDED SUPPORT REAGENTS

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



BAF170 (G-12): sc-166237. Western blot analysis of BAF170 expression in K-562 (**A**), HEL 92.1.7 (**B**) and SW480 (**C**) nuclear extracts and HUV-EC-C (**D**) and WEHI-231 (**E**) whole cell lysates.



BAF170 (G-12): sc-166237. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tissue showing nuclear and cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Valencia, A.M., et al. 2019. Recurrent SMARCB1 mutations reveal a nucleosome acidic patch interaction site that potentiates mSWI/SNF complex chromatin remodeling. Cell 179: 1342-1356.
2. Hong, A.L., et al. 2019. Renal medullary carcinomas depend upon SMARCB1 loss and are sensitive to proteasome inhibition. Elife 8 pii: e44161.

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.

PROTOCOLS

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