SANTA CRUZ BIOTECHNOLOGY, INC.

WBSCR22 (F-2): sc-376714

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Williams-Beuren syndrome (WBS) is a developmental disorder caused by a hemizygous microdeletion on chromosome 7q11.23. WBS is an autosomal dominant genetic condition that is characterized by abnormal physical, cognitive and behavioral traits. The physical traits associated with WBS include facial dysmorphology, vascular stenoses, growth deficiencies, dental anomalies and neurologic and musculoskeletal abnormalities. Mild retardation, weakness in visual-spatial skills, anxiety and a short attention span are typical cognitive and behavioral traits of WBS patients. The WBSCR22 gene is located within the WBS deletion and may contribute to the developmental symptoms found in WBS because of a loss of the encoded transcription factor. WBSCR22 (Williams-Beuren syndrome chromosomal region 22 protein), also known as HUSSY-3, PP3381 or WBMT, is a 281 amino acid nuclear methyltransferase that may act on DNA. WBSCR22 is highly expressed in kidney, heart and skeletal muscle and has lower levels of expression in lung, spleen, liver and testis.

REFERENCES

1. Morris, C.A., et al. 1988. Natural history of Williams syndrome: physical characteristics. J. Pediatr. 113: 318-326.
2. Pober, B.R. and Dykens, E.M. 1996. Child Aldolesc. Psychiatr. Clin. North Am. 5: 929-943.
3. Lashkari, A., et al. 1999. Williams-Beuren syndrome: an update and review for the primary physician. Clin. Pediatr. 38: 189-208.
4. Bellugi, U., et al. 1999. Bridging cognition, the brain and molecular genetics: evidence from Williams syndrome. Trends Neurosci. 22: 197-207.
5. Tassabehji, M., et al. 1999. A transcription factor involved in skeletal muscle gene expression is deleted in patients with Williams syndrome. Eur. J. Hum. Genet. 7: 737-747.

CHROMOSOMAL LOCATION

Genetic locus: WBSCR22 (human) mapping to 7q11.23.

SOURCE

WBSCR22 (F-2) is a mouse monoclonal antibody raised against amino acids 1-281 representing full length WBSCR22 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.

WBSCR22 (F-2) is available conjugated to agarose (sc-376714 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376714 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376714 PE), fluorescein (sc-376714 FITC), Alexa Fluor® 488 (sc-376714 AF488), Alexa Fluor® 546 (sc-376714 AF546), Alexa Fluor® 594 (sc-376714 AF594) or Alexa Fluor® 647 (sc-376714 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376714 AF680) or Alexa Fluor® 790 (sc-376714 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

WBSCR22 (F-2) is recommended for detection of WBSCR22 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for WBSCR22 siRNA (h): sc-89457, WBSCR22 shRNA Plasmid (h): sc-89457-SH and WBSCR22 shRNA (h) Lentiviral Particles: sc-89457-V.

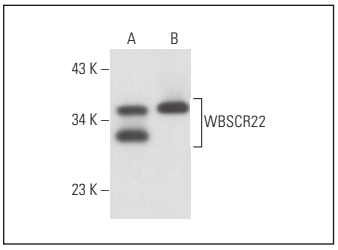
Molecular Weight of WBSCR22: 32 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181, HCT-116 whole cell lysate: sc-364175 or A-375 cell lysate: sc-3811.

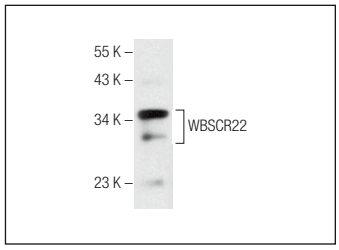
RECOMMENDED SUPPORT REAGENTS

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.

DATA



WBSCR22 (F-2): sc-376714. Western blot analysis of WBSCR22 expression in HCT-116 (**A**) and NTERA-2 cl.D1 (**B**) whole cell lysates.



WBSCR22 (F-2): sc-376714. Western blot analysis of WBSCR22 expression in A-375 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Brumele, B., et al. 2021. Human TRMT112-methyltransferase network consists of seven partners interacting with a common co-factor. Int. J. Mol. Sci. 22: 13593.

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.