SANTA CRUZ BIOTECHNOLOGY, INC.

BRWD3 (F-16): sc-167227

BACKGROUND

Members of the WD repeat protein family are involved in a variety of cellular processes, including cell cycle progression, signal transduction, apoptosis and gene regulation. BRWD3 (bromodomain and WD repeat-containing protein 3) is a 1,802 amino acid protein expressed in fetal liver and most adult tissues. Existing as five alternatively spliced isoforms, BRWD3 contains two bromo domains, nine WD repeats and is thought to play a role in transcription by modifying chromatin. Mutations in the gene encoding BRWD3 are the cause of mental retardation X-linked type 93 (MRX93), which is also known as mental retardation X-linked with macrocephaly (XLMR). MRX93 is characterized by mild intellectual disability, macrocephaly, a prominent forehead and large cupped ears.

REFERENCES

1. Gedeon, A., et al. 1994. Pericentromeric genes for non-specific X-linked mental retardation (MRX). Am. J. Med. Genet. 51: 553-564.

2. Kalla, C., et al. 2005. Translocation t(X;11)(q13;q23) in B-cell chronic lymphocytic leukemia disrupts two novel genes. Genes Chromosomes Cancer 42: 128-143.

3. Müller, P., et al. 2005. Identification of JAK/STAT signalling components by genome-wide RNA interference. Nature 436: 871-875.

4. Field, M., et al. 2007. Mutations in the BRWD3 gene cause X-linked mental retardation associated with macrocephaly. Am. J. Hum. Genet. 81: 367-374.

5. Tarpey, P.S., et al. 2009. A systematic, large-scale resequencing screen of X-chromosome coding exons in mental retardation. Nat. Genet. 41: 535-543.

6. Online Mendelian Inheritance in Man, OMIM™. 2010. Johns Hopkins University, Baltimore, MD. MIM Number: 300553. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: BRWD3 (human) mapping to Xq21.1; Brwd3 (mouse) mapping to X D.

SOURCE

BRWD3 (F-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BRWD3 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.

Blocking peptide available for competition studies, sc-167227 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

BRWD3 (F-16) is recommended for detection of BRWD3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with BRWD1.

BRWD3 (F-16) is also recommended for detection of BRWD3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for BRWD3 siRNA (h): sc-91071, BRWD3 siRNA (m): sc-141759, BRWD3 shRNA Plasmid (h): sc-91071-SH, BRWD3 shRNA Plasmid (m): sc-141759-SH, BRWD3 shRNA (h) Lentiviral Particles: sc-91071-V and BRWD3 shRNA (m) Lentiviral Particles: sc-141759-V.

Molecular Weight of BRWD3: 204 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.