

WRB (G-1): sc-393597

BACKGROUND

WRB, also known as congenital heart disease 5 protein (CHD5), is a 174 amino acid nuclear protein that has a potential nuclear localization signal and a tryptophan-rich C-terminus. Widely expressed in both adult and fetal tissues, WRB is encoded by a gene that localizes to a region on chromosome 21 that is associated with congenital heart disease (CHD) in Down syndrome (DS) patients. DS, a chromosomal disorder caused by an extra copy of chromosome 21, is characterized by poor muscle tone, impaired cognitive ability, retarded physical growth and an increased risk for CHD. Due to its location on chromosome 21, WRB may be involved in the pathogenesis of DS-related heart disease.

REFERENCES

1. Korenberg, J.R., et al. 1992. Down syndrome: molecular mapping of the congenital heart disease and duodenal stenosis. *Am. J. Hum. Genet.* 50: 294-302.
2. Delabar, J.M., et al. 1993. Molecular mapping of twenty-four features of Down syndrome on chromosome 21. *Eur. J. Hum. Genet.* 1: 114-124.
3. Egeo, A., et al. 1998. Identification and characterization of a new human cDNA from chromosome 21q22.3 encoding a basic nuclear protein. *Hum. Genet.* 102: 289-293.
4. Hattori, M., et al. 2000. The DNA sequence of human chromosome 21. *Nature* 405: 311-319.

CHROMOSOMAL LOCATION

Genetic locus: WRB (human) mapping to 21q22.2; Wrb (mouse) mapping to 16 C4.

SOURCE

WRB (G-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 52-79 within an internal region of WRB 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.

WRB (G-1) is available conjugated to agarose (sc-393597 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393597 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393597 PE), fluorescein (sc-393597 FITC), Alexa Fluor® 488 (sc-393597 AF488), Alexa Fluor® 546 (sc-393597 AF546), Alexa Fluor® 594 (sc-393597 AF594) or Alexa Fluor® 647 (sc-393597 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393597 AF680) or Alexa Fluor® 790 (sc-393597 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393597 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

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

WRB (G-1) is also recommended for detection of WRB in additional species, including bovine and porcine.

Suitable for use as control antibody for WRB siRNA (h): sc-91393, WRB siRNA (m): sc-155359, WRB shRNA Plasmid (h): sc-91393-SH, WRB shRNA Plasmid (m): sc-155359-SH, WRB shRNA (h) Lentiviral Particles: sc-91393-V and WRB shRNA (m) Lentiviral Particles: sc-155359-V.

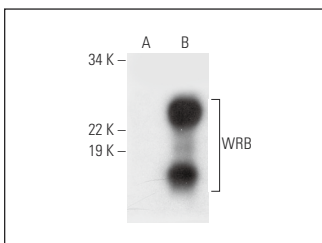
Molecular Weight of WRB: 20 kDa.

Positive Controls: WRB (h): 293 Lysate: sc-113064.

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



WRB (G-1): sc-393597. Western blot analysis of WRB expression in non-transfected: sc-110760 (A) and human WRB transfected: sc-113064 (B) 293 whole cell lysates.

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.