

# WRB (12-K): sc-100719

## 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's 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., Bradley, C. and Disteche, C.M. 1992. Down syndrome: molecular mapping of the congenital heart disease and duodenal stenosis. *Am. J. Hum. Genet.* 50: 294-302.
2. Delabar, J.M., Theophile, D., Rahmani, Z., Chettouh, Z., Blouin, J.L., Prieur, M., Noel, B. and Sinet, P.M. 1993. Molecular mapping of twenty-four features of Down syndrome on chromosome 21. *Eur. J. Hum. Genet.* 1: 114-124.
3. Egeo, A., Mazzocco, M., Sotgia, F., Arrigo, P., Oliva, R., Bergonon, S., Nizetic, D., Rasore-Quartino, A. and Scartezini, P. 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., Fujiyama, A., Taylor, T.D., Watanabe, H., Yada, T., Park, H.S., Toyoda, A., Ishii, K., Totoki, Y., Choi, D.K., Groner, Y., Soeda, E., Ohki, M., Takagi, T., Sakaki, Y., Taudien, S., Blechschmidt, K., Polley, A., et al. 2000. The DNA sequence of human chromosome 21. *Nature* 405: 311-319.
5. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 602915. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

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

## SOURCE

WRB (12-K) is a mouse monoclonal antibody raised against recombinant WRB of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

WRB (12-K) is recommended for detection of WRB of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

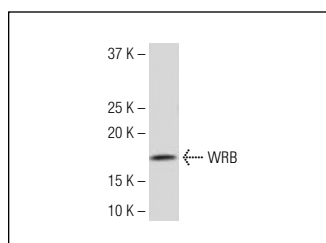
Molecular Weight of WRB: 20 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409.

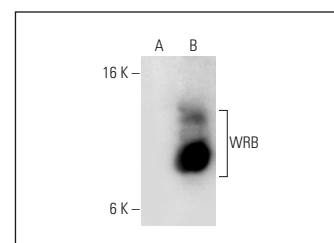
## RECOMMENDED SUPPORT REAGENTS

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<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



WRB (12-K): sc-100719. Western blot analysis of WRB expression in IMR-32 whole cell lysate.



WRB (12-K): sc-100719. Western blot analysis of WRB expression in non-transfected: sc-110760 (A) and human WRB transfected: sc-113064 (B) 293 whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.