

ARH2 (m): 293T Lysate: sc-118525

BACKGROUND

ARH2 (ADP-ribosylhydrolase 2), also known as ADPRHL1 (ADP-ribosylhydrolase like 1), is a 354 amino acid protein that catalyzes the removal of ADP-ribose from target proteins. ARH2 is expressed as two alternatively spliced isoforms which are encoded by a gene that maps to human chromosome 13q34. Comprising nearly 4% of the human genome, chromosome 13 contains around 114 million base pairs and encodes over 400 genes. Chromosome 13 houses key tumor suppressor genes, including BRCA2 and RB1, which are associated with breast cancer susceptibility and retinoblastoma, respectively. Trisomy 13, also known as Patau syndrome, is deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

REFERENCES

1. Glowacki, G., Braren, R., Firner, K., Nissen, M., Kühl, M., Reche, P., Bazan, F., Cetkovic-Cvrlje, M., Leiter, E., Haag, F. and Koch-Nolte, F. 2002. The family of toxin-related ecto-ADP-ribosyltransferases in humans and the mouse. *Protein Sci.* 11: 1657-1670.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610620. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Dunham, A., Matthews, L.H., Burton, J., Ashurst, J.L., Howe, K.L., Ashcroft, K.J., Beare, D.M., Burford, D.C., Hunt, S.E., Griffiths-Jones, S., Jones, M.C., Keenan, S.J., Oliver, K., Scott, C.E., Ainscough, R., Almeida, J.P., Ambrose, K.D., Andrews, D.T., Ashwell, R.I., Babbage, A.K., Bagguley, C.L., et al. 2004. The DNA sequence and analysis of human chromosome 13. *Nature* 428: 522-528.
4. Rohozinski, J., Lamb, D.J. and Bishop, C.E. 2006. UTP14c is a recently acquired retrogene associated with spermatogenesis and fertility in man. *Biol. Reprod.* 74: 644-651.
5. Oka, S., Kato, J. and Moss, J. 2006. Identification and characterization of a mammalian 39-kDa poly(ADP-ribose) glycohydrolase. *J. Biol. Chem.* 281: 705-713.
6. Bugge, M., Collins, A., Hertz, J.M., Eiberg, H., Lundsteen, C., Brandt, C.A., Bak, M., Hansen, C., Delozier, C.D., Lespinasse, J., Tranebjaerg, L., Hahne-mann, J.M., Rasmussen, K., Bruun-Petersen, G., Duprez, L., Tommerup, N. and Petersen, M.B. 2007. Non-disjunction of chromosome 13. *Hum. Mol. Genet.* 16: 2004-2010.
7. Hall, H.E., Chan, E.R., Collins, A., Judis, L., Shirley, S., Surti, U., Hoffner, L., Cockwell, A.E., Jacobs, P.A. and Hassold, T.J. 2007. The origin of trisomy 13. *Am. J. Med. Genet. A* 143: 2242-2248.
8. Hassler, M., Singh, S., Yue, W.W., Luczynski, M., Lakbir, R., Sanchez-Sanchez, F., Bader, T., Pearl, L.H. and Mitnacht, S. 2007. Crystal structure of the retinoblastoma protein N domain provides insight into tumor suppression, ligand interaction and holoprotein architecture. *Mol. Cell* 28: 371-385.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: Adprhl1 (human) mapping to 8 A1.1.

PRODUCT

ARH2 (m): 293T Lysate represents a lysate of mouse ARH2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

ARH2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ARH2 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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.