

PLEKHM3 (m): 293T Lysate: sc-122637

BACKGROUND

PLEKHM3 (pleckstrin homology domain containing, family M, member 3), also known as DAPR or PLEKHM1L (pleckstrin homology domain containing, family M, member 1-like), is a 761 amino acid phosphoprotein that contains 2 pleckstrin homology (PH) domains and one phorbol-ester/DAG-type zinc finger. Conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish, PLEKHM3 exists as three alternatively spliced isoforms that participate in metal ion binding. The gene that encodes PLEKHM3 maps to human chromosome 2q33.3. As the second largest human chromosome, chromosome 2 makes up approximately 8% of the human genome and contains 237 million bases encoding over 1,400 genes. Chromosome 2 contains a probable vestigial second centromere, as well as vestigial telomeres, which gives credence to the hypothesis that human chromosome 2 formed as a result of an ancient fusion of two ancestral chromosomes, which are still present in modern day apes.

REFERENCES

1. Ijdo, J.W., Baldini, A., Ward, D.C., Reenders, S.T. and Wells, R.A. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. *Proc. Natl. Acad. Sci. USA* 88: 9051-9055.
2. Avarello, R., Pedicini, A., Caiulo, A., Zuffardi, O. and Fraccaro, M. 1992. Evidence for an ancestral alphoid domain on the long arm of human chromosome 2. *Hum. Genet.* 89: 247-249.
3. Hillier, L.W., Graves, T.A., Fulton, R.S., Fulton, L.A., Pepin, K.H., Minx, P., Wagner-McPherson, C., Layman, D., Wylie, K., Sekhon, M., Becker, M.C., Fewell, G.A., Delehaanty, K.D., Miner, T.L., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. *Nature* 434: 724-731.
4. Akiyama, M., Sakai, K., Sato, T., McMillan, J.R., Goto, M., Sawamura, D. and Shimizu, H. 2007. Compound heterozygous ABCA12 mutations including a novel nonsense mutation underlie harlequin ichthyosis. *Dermatology* 215: 155-159.
5. Marshall, J.D., Hinman, E.G., Collin, G.B., Beck, S., Cerqueira, R., Maffei, P., Milan, G., Zhang, W., Wilson, D.I., Hearn, T., Tavares, P., Vettor, R., Veronese, C., Martin, M., So, W.V., Nishina, P.M. and Naggert, J.K. 2007. Spectrum of ALMS1 variants and evaluation of genotype-phenotype correlations in Alström syndrome. *Hum. Mutat.* 28: 1114-1123.
6. Virtanen, C., Paris, J. and Takahashi, M. 2009. Identification and characterization of a novel gene, dapr, involved in skeletal muscle differentiation and protein kinase B signaling. *J. Biol. Chem.* 284: 1636-1643.

CHROMOSOMAL LOCATION

Genetic locus: Plekham3 (mouse) mapping to 1 C2.

PRODUCT

PLEKHM3 (m): 293T Lysate represents a lysate of mouse PLEKHM3 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

PLEKHM3 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive PLEKHM3 antibodies. Recommended use: 10-20 µl per lane.

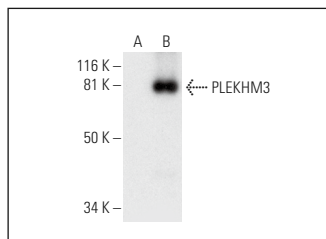
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PLEKHM3 (A-2): sc-393066 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse PLEKHM3 expression in PLEKHM3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

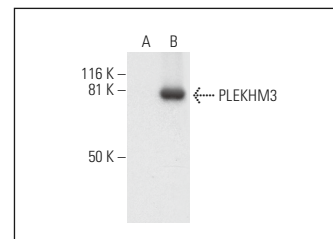
RECOMMENDED SUPPORT REAGENTS

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.

DATA



PLEKHM3 (A-2): sc-393066. Western blot analysis of PLEKHM3 expression in non-transfected: sc-117752 (A) and mouse PLEKHM3 transfected: sc-122637 (B) 293T whole cell lysates.



PLEKHM3 (H-2): sc-393150. Western blot analysis of PLEKHM3 expression in non-transfected: sc-117752 (A) and mouse PLEKHM3 transfected: sc-122637 (B) 293T whole cell lysates.

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.

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.