SANTA CRUZ BIOTECHNOLOGY, INC.

PLEKHQ1 (SS-23): sc-100412



BACKGROUND

PLEKHQ1 (pleckstrin homology domain containing, family Q member 1), also known as PLEKHO2 (pleckstrin homology domain containing, family O member 2), PP1628 or pp9099, is a 490 amino acid protein that is believed to contain at least one pleckstrin homology (PH) domain. PH domains are responsible for mediating protein-protein and protein-lipid interactions. In humans, the gene encoding PLEKHQ1 is found on chromosome 15 and is known to be one of many circulat-responsive genes. Circulat is a plant extract formulation that was derived to prevent the severe onset of type 2 diabetes. Chromosome 15 makes up approximately 3% of the human genome and contains 106 million base pairs encoding more than 700 genes. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes on chromosome 15g. Tay-Sachs disease and Marfan syndrome are also associated with chromosome 15.

REFERENCES

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- 3. Zody, M.C., et al. 2006. Analysis of the DNA sequence and duplication history of human chromosome 15. Nature 440: 671-675.
- 4. Cachón-González, M.B., et al. 2006. Effective gene therapy in an authentic model of Tay-Sachs-related diseases. Proc. Natl. Acad. Sci. USA 103: 10373-10378.
- 5. Diene, G., et al. 2007. The Prader-Willi syndrome. Ann. Endocrinol. 68: 129-137.
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- 7. Antoshechkin, A., et al. 2007. Analysis of effects of the herbal preparation Circulat on gene expression levels in cultured human fibroblasts. Phytother. Res. 21: 777-789.
- 8. Lalande, M. and Calciano, M.A. 2007. Molecular epigenetics of Angelman syndrome. Cell. Mol. Life Sci. 64: 947-960.

CHROMOSOMAL LOCATION

Genetic locus: PLEKHO2 (human) mapping to 15q22.31.

SOURCE

PLEKHQ1 (SS-23) is a mouse monoclonal antibody raised against recombinant PLEKHQ1 of human origin.

PRODUCT

Each vial contains 100 μ g lgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PLEKHQ1 (SS-23) is recommended for detection of PLEKHQ1 of 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 PLEKHQ1 siRNA (h): sc-90098, PLEKHQ1 shRNA Plasmid (h): sc-90098-SH and PLEKHQ1 shRNA (h) Lentiviral Particles: sc-90098-V.

Molecular Weight of PLEKHQ1 isoforms: 53/48 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or TT whole cell lysate: sc-364195.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgGκ BP-HRP: sc-516102 or m-lgGκ 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).

DATA





PLEKHQ1 (SS-23): sc-100412. Western blot analysis of <code>PLEKHQ1</code> expression in HeLa (A) and TT (B) whole cell PLEKHQ1 (SS-23): sc-100412. Western blot analysis of PLEKHQ1 expression in Jurkat whole cell lysate

SELECT PRODUCT CITATIONS

1. Liu, S., et al. 2021. The miR-106b/NR2F2-AS1/PLEKHO2 axis regulates migration and invasion of colorectal cancer through the MAPK pathway. Int. J. Mol. Sci. 22: 5877.

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.