

# PLEKHQ1 (SS-23): sc-100412

## BACKGROUND

PLEKHQ1 (pleckstrin homology domain containing, family Q member 1), also known as PLEKHQ2 (pleckstrin homology domain containing, family Q 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 15q. Tay-Sachs disease and Marfan syndrome are also associated with chromosome 15.

## REFERENCES

1. Strausberg, R.L., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc. Natl. Acad. Sci. USA* 99: 16899-16903.
2. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. *Nat. Genet.* 36: 40-45.
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.
6. Makoff, A.J. and Flomen, R.H. 2007. Detailed analysis of 15q11-q14 sequence corrects errors and gaps in the public access sequence to fully reveal large segmental duplications at breakpoints for Prader-Willi, Angelman, and inv dup(15) syndromes. *Genome Biol.* 8: R114.
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.

## CHROMOSOMAL LOCATION

Genetic locus: PLEKHQ2 (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 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## 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.

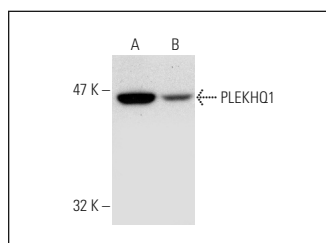
Molecular Weight of PLEKHQ1 isoforms: 53/48 kDa.

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

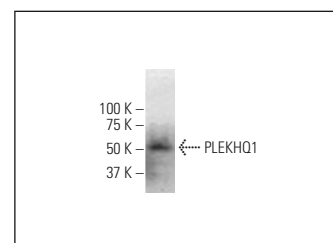
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-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).

## DATA



PLEKHQ1 (SS-23): sc-100412. Western blot analysis of PLEKHQ1 expression in HeLa (A) and TT (B) whole cell lysates.



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/PLEKHQ2 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.

## PROTOCOLS

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