

ZCWCC1 (Q-20): sc-65005

BACKGROUND

The CW domain is a structural module found in many vertebrate, parasitic and plant proteins. It consists of a mononuclear four-cysteine zinc finger domain that plays a role in DNA binding, chromatin methylation and early embryonic development. ZCWCC1 (zinc finger CW-type coiled-coil domain protein 1), also known as MORC2 (MORC family CW-type zinc finger protein 2) or ZCW3, is a 1,032 amino acid protein that contains one CW-type zinc finger domain. ZCWCC1 is located on chromosome 22 and is ubiquitously expressed with highest expression in pancreas, smooth muscle and testis. Expression of ZCWCC1 is upregulated in hypoxia, a pathological condition characterized by an inadequate supply of oxygen in the blood.

REFERENCES

- Dunham, I., Shimizu, N., Roe, B.A., Chisoe, S., Hunt, A.R., Collins, J.E., Bruskiewich, R., Beare, D.M., Clamp, M., Smink, L.J., Ainscough, R., Almeida, J.P., Babbage, A., Bagguley, C., Bailey, J., Barlow, K., Bates, K.N., Beasley, O., Bird, C.P., et al. 1999. The DNA sequence of human chromosome 22. *Nature* 402: 489-495.
- Perry, J. and Zhao, Y. 2003. The CW domain, a structural module shared amongst vertebrates, vertebrate-infecting parasites and higher plants. *Trends Biochem. Sci.* 28: 576-580.
- Koklanaris, N., Nwachukwu, J.C., Huang, S.J., Guller, S., Karpisheva, K., Garabedian, M. and Lee, M.J. 2006. First-trimester trophoblast cell model gene response to hypoxia. *Am. J. Obstet. Gynecol.* 194: 687-693.
- Takahashi, K., Yoshida, N., Murakami, N., Kawata, K., Ishizaki, H., Tanaka-Okamoto, M., Miyoshi, J., Zinn, A.R., Shime, H. and Inoue, N. 2007. Dynamic regulation of p53 subnuclear localization and senescence by MORC3. *Mol. Biol. Cell* 18: 1701-1709.
- Liggins, A.P., Cooper, C.D., Lawrie, C.H., Brown, P.J., Collins, G.P., Hatton, C.S., Pulford, K. and Banham, A.H. 2007. MORC4, a novel member of the MORC family, is highly expressed in a subset of diffuse large B-cell lymphomas. *Br. J. Haematol.* 138: 479-486.
- LocusLink Report (LocusID: 22880). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: MORC2 (human) mapping to 22q12.2.

SOURCE

ZCWCC1 (Q-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZCWCC1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-65005 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

ZCWCC1 (Q-20) is recommended for detection of ZCWCC1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ZCWCC1 (Q-20) is also recommended for detection of ZCWCC1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ZCWCC1 siRNA (h): sc-63239, ZCWCC1 shRNA Plasmid (h): sc-63239-SH and ZCWCC1 shRNA (h) Lentiviral Particles: sc-63239-V.

Molecular Weight of ZCWCC1: 118 kDa.

Positive Controls: IMR-32 nuclear extract: sc-2148 or Jurkat nuclear extract: sc-2132.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.