

CASC4 (E-19): sc-160204

BACKGROUND

CASC4 (cancer susceptibility candidate 4), also known as H63, has been identified as a gene associated with HER-2/neu overexpression. Consisting of 433 amino acids and existing as 3 alternatively spliced isoforms, CASC4 is a single-pass type II membrane protein belonging to the GOLM1/CASC4 family. The gene encoding CASC4 maps to human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome. Angelman syndrome, Prader-Willi syndrome, Tay-Sachs disease and Marfan syndrome are all associated with defects in chromosome 15-localized genes. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes in the 15q11-q13 region. Tay-Sachs disease and Marfan syndrome are associated with chromosome 15 through the HEXA and FBN1 genes, respectively.

REFERENCES

- Hurowitz, G.I., Silver, J.M., Brin, M.F., Williams, D.T. and Johnson, W.G. 1993. Neuropsychiatric aspects of adult-onset Tay-Sachs disease: two case reports with several new findings. *J. Neuropsychiatry Clin. Neurosci.* 5: 30-36.
- Oh, J.J., Grosshans, D.R., Wong, S.G. and Slamon, D.J. 1999. Identification of differentially expressed genes associated with HER-2/neu overexpression in human breast cancer cells. *Nucleic Acids Res.* 27: 4008-4017.
- Scheer, M., Prange, W., Petmecky, K., Schirmacher, P., Zöller, J.E. and Kübler, A.C. 2003. Evaluation of HER-2/neu amplification/overexpression in OSCC with fluorescence *in situ* hybridization (FISH) and immunohistochemistry. *Mund Kiefer Gesichtschir.* 7: 138-145.
- Sato, T., Peiper, M., Heinecke, A., Zurakowski, D., Eisenberger, C.F., Hosch, S., Knoefel, W.T. and Izbicki, J.R. 2003. Expression of HER-2/neu does not correlate with survival in soft tissue sarcoma. *Onkologie* 26: 268-271.
- Midla, G.S. 2008. Diagnosis and management of patients with Marfan syndrome. *JAAPA* 21: 21-25.
- Dan, B. 2009. Angelman syndrome: current understanding and research prospects. *Epilepsia* 50: 2331-2339.

CHROMOSOMAL LOCATION

Genetic locus: CASC4 (human) mapping to 15q15.3; Casc4 (mouse) mapping to 2 E5.

SOURCE

CASC4 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CASC4 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-160204 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CASC4 (E-19) is recommended for detection of CASC4 of mouse, rat and 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)], 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); non cross-reactive with other CASC family members.

CASC4 (E-19) is also recommended for detection of CASC4 in additional species, including canine and bovine.

Suitable for use as control antibody for CASC4 siRNA (h): sc-90060, CASC4 siRNA (m): sc-142017, CASC4 shRNA Plasmid (h): sc-90060-SH, CASC4 shRNA Plasmid (m): sc-142017-SH, CASC4 shRNA (h) Lentiviral Particles: sc-90060-V and CASC4 shRNA (m) Lentiviral Particles: sc-142017-V.

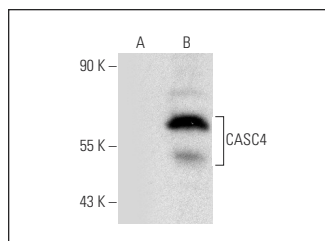
Molecular Weight of CASC4: 49 kDa.

Positive Controls: CASC4 (h): 293T Lysate: sc-116811.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



CASC4 (E-19): sc-160204. Western blot analysis of CASC4 expression in non-transfected: sc-117752 (A) and human CASC4 transfected: sc-116811 (B) 293T whole cell lysates.

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.