

CASKIN2 (E-10): sc-393793

BACKGROUND

CASKIN2 (CASK interacting protein 2), also known as ANKS5B, is a 1,202 amino acid protein that localizes to the cytoplasm and contains one SH3 domain, two SAM domains and six ANK repeats. Expressed ubiquitously with highest levels present in fetal and adult liver tissue, CASKIN2 interacts with CASK and is thought to play a role in CASK function, specifically by coupling CASK to distinct downstream effectors. The gene encoding CASKIN2 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

REFERENCES

1. Tabuchi, K., et al. 2002. CASK participates in alternative tripartite complexes in which Mint 1 competes for binding with caskin 1, a novel CASK-binding protein. *J. Neurosci.* 22: 4264-4273.
2. Nusbaum, R., et al. 2006. Susceptibility to breast cancer: hereditary syndromes and low penetrance genes. *Breast Dis.* 27: 21-50.
3. Ropolo, A., et al. 2007. The pancreatitis-induced vacuole membrane protein 1 triggers autophagy in mammalian cells. *J. Biol. Chem.* 282: 37124-37133.
4. Tai, Y.C., et al. 2007. Breast cancer risk among male BRCA1 and BRCA2 mutation carriers. *J. Natl. Cancer Inst.* 99: 1811-1814.
5. Yan, J., et al. 2007. BLIMP1 regulates cell growth through repression of p53 transcription. *Proc. Natl. Acad. Sci. USA* 104: 1841-1846.
6. Sauermann, M., et al. 2008. Reduced expression of vacuole membrane protein 1 affects the invasion capacity of tumor cells. *Oncogene* 27: 1320-1326.

CHROMOSOMAL LOCATION

Genetic locus: CASKIN2 (human) mapping to 17q25.1; Caskin2 (mouse) mapping to 11 E2.

SOURCE

CASKIN2 (E-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 383-406 within an internal region of CASKIN2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393793 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

CASKIN2 (E-10) is recommended for detection of CASKIN2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for CASKIN2 siRNA (h): sc-93841, CASKIN2 siRNA (m): sc-142021, CASKIN2 shRNA Plasmid (h): sc-93841-SH, CASKIN2 shRNA Plasmid (m): sc-142021-SH, CASKIN2 shRNA (h) Lentiviral Particles: sc-93841-V and CASKIN2 shRNA (m) Lentiviral Particles: sc-142021-V.

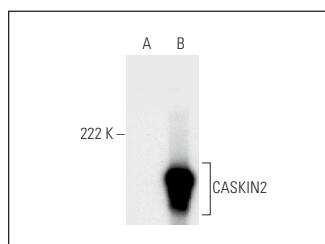
Molecular Weight of CASKIN2: 180 kDa.

Positive Controls: CASKIN2 (h): 293T Lysate: sc-116892 or MCF7 whole cell lysate: sc-2206.

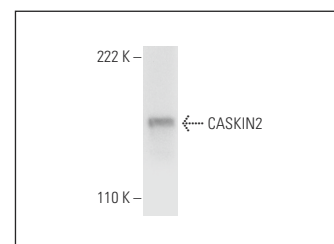
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CASKIN2 (E-10): sc-393793. Western blot analysis of CASKIN2 expression in non-transfected: sc-117752 (A) and human CASKIN2 transfected: sc-116892 (B) 293T whole cell lysates.



CASKIN2 (E-10): sc-393793. Western blot analysis of CASKIN2 expression in MCF7 whole cell lysate.

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.