

CASK (N-17): sc-11202

BACKGROUND

The MAGUK (membrane-associated guanylate kinase homologs) family of proteins contain multiple protein-binding domains and are involved in cell junction organization, tumor suppression, and signaling. CASK (also designated LIN-2) belongs to a MAGUK subfamily which is characterized by a novel domain structure that consists of a calcium/calmodulin-dependent protein kinase domain followed by PDZ, SH3 and guanylate kinase-like (GUK) domains. CASK is expressed in rat brain where it binds to cell-surface proteins, such as neuroligin and syndecan, and is thought to be involved in signaling at neuronal synapses. CASK translocates to the nucleus and interacts with Tbr-1 to form a complex, which binds to a specific DNA sequence (the T-element), and induces the expression of specific genes, including Reelin. CASK displays a transcription regulation function, which appears crucial for cerebrocortical development.

REFERENCES

1. Hata, Y., et al. 1996. CASK: a novel dlg/PSD95 homolog with an N-terminal calmodulin-dependent protein kinase domain identified by interaction with neuroligins. *J. Neurosci.* 16: 2488-2494.
2. Dimitratos, S.D., et al. 1997. Camguk, Lin-2, and CASK: novel membrane-associated guanylate kinase homologs that also contain CaM kinase domains. *Mech. Dev.* 63: 127-130.
3. Cohen, A.R., et al. 1998. Human CASK/LIN-2 binds syndecan-2 and protein 4.1 and localizes to the basolateral membrane of epithelial cells. *J. Cell Biol.* 142: 129-138.
4. Hsueh, Y.P., et al. 1998. Direct interaction of CASK/LIN-2 and syndecan heparan sulfate proteoglycan and their overlapping distribution in neuronal synapses. *J. Cell Biol.* 142: 139-151.
5. Hsueh, Y.P., et al. 1999. Regulated expression and subcellular localization of syndecan heparan sulfate proteoglycans and the syndecan-binding protein CASK/LIN-2 during rat brain development. *J. Neurosci.* 19: 7415-7425.
6. Bredt, D.S. 2000 Reeling CASK into the nucleus. *Nature* 404: 241-242.
7. Hsueh, Y.P., et al. 2000. Nuclear translocation and transcription regulation by the membrane-associated guanylate kinase CASK/LIN-2. *Nature* 404: 298-302.

CHROMOSOMAL LOCATION

Genetic locus: CASK (human) mapping to Xp11.4; Cask (mouse) mapping to X A1.1.

SOURCE

CASK (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CASK of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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-11202 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CASK (N-17) is recommended for detection of CASK 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).

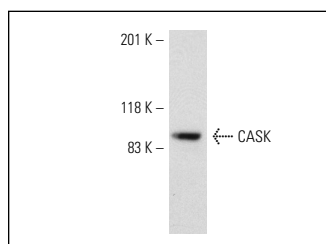
CASK (N-17) is also recommended for detection of CASK in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CASK siRNA (h): sc-29920, CASK siRNA (m): sc-29921, CASK shRNA Plasmid (h): sc-29920-SH, CASK shRNA Plasmid (m): sc-29921-SH, CASK shRNA (h) Lentiviral Particles: sc-29920-V and CASK shRNA (m) Lentiviral Particles: sc-29921-V.

Molecular Weight of CASK: 112 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285, mouse brain extract: sc-2253 or c4 whole cell lysate: sc-364186.

DATA



CASK (N-17): sc-11202. Western blot analysis of CASK expression in c4 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Mburu, P., et al. 2006. Whirlin complexes with p55 at the stereocilia tip during hair cell development. *Proc. Natl. Acad. Sci. USA* 103: 10973-10978.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **CASK (C-6): sc-13158** or **CASK (7): sc-135857**, our highly recommended monoclonal alternatives to CASK (N-17).