SANTA CRUZ BIOTECHNOLOGY, INC.

CASK (H-107): sc-10777



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 neurexin 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.

CHROMOSOMAL LOCATION

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

SOURCE

CASK (H-107) is a rabbit polyclonal antibody raised against amino acids 353-459 of CASK of human origin.

PRODUCT

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

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

CASK (H-107) 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 μ g per 100-500 μ g 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 (H-107) 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: rat brain extract: sc-2392, mouse brain extract: sc-2253 or DU 145 cell lysate: sc-2268.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA





CASK (H-107): sc-10777. Western blot analysis of CASK expression in rat brain tissue extract (A) and DU 145 whole cell lysate (B).

CASK (H-107): sc-10777. Immunofluorescence staining of methanol-fixed DU 145 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Sun, Q. and Kelly, G.M. 2010. Post-translational modification of CASK leads to its proteasome-dependent degradation. Int. J. Biochem. Cell Biol. 42: 90-97.
- Gnanasekaran, A., et al. 2013. Calcium/calmodulin-dependent serine protein kinase (CASK) is a new intracellular modulator of P2X3 receptors. J. Neurochem. 126: 102-112.
- 3. Uzawa, K., et al. 2014. Suppression of metastasis by mirtazapine via restoration of the Lin-7C/ β -catenin pathway in human cancer cells. Sci. Rep. 4: 5433.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfation Guaranteed Try CASK (C-6): sc-13158 or CASK (7): sc-135857, our highly recommended monoclonal alternatives to CASK (H-107).