SANTA CRUZ BIOTECHNOLOGY, INC.

CSP (H-128): sc-33154

The Power to Question

BACKGROUND

Cysteine string proteins (CSPs) are synaptic vesicle-associated, secretory vesicle proteins that are involved in Ca^{2+}-regulated exocytosis of synaptic vesicles and modulation of presynaptic transmembrane calcium fluxes in neuroendocrine and endocrine cell types. CSP contains a J-domain that binds HSP 70/HSC 70 chaperone ATPases and a membrane-targeting, palmitoylated cysteine-rich string region. CSPs may act as molecular chaperones in synapses, and mediate conformational folding of components of the vesicular exocytotic machinery. CSP is involved in the fine tuning of neurotransmission through its interaction with receptor-coupled trimeric GTP binding proteins (G proteins) and N-type Ca^{2+} channels. 2 variants of CSP have been described: CSP1; and the 31 amino acid, C-terminally truncated isoform, CSP2. Subcellular fractionation of Insulinoma cells shows CSP1 in granular fractions, while the membrane and cytosol fractions contain predominantly CSP2. The fractions also contain additional proteins, presumably CSP dimers. Furthermore, in various mammalian cell lines (including rat brain) CSP1 expression predominates CSP2 expression.

CHROMOSOMAL LOCATION

Genetic locus: DNAJC5 (human) mapping to 20q13.33; Dnajc5 (mouse) mapping to 2 H4.

SOURCE

CSP (H-128) is a rabbit polyclonal antibody raised against amino acids 71-198 mapping at the C-terminus of CSP 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.

RESEARCH USE

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

APPLICATIONS

CSP (H-128) is recommended for detection of CSP isoforms 1 and 2 and β-CSP 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).

CSP (H-128) is also recommended for detection of CSP isoforms 1 and 2 and β-CSP in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for CSP siRNA (h): sc-43709, CSP siRNA (m): sc-41928, CSP shRNA Plasmid (h): sc-43709-SH, CSP shRNA Plasmid (m): sc-41928-SH, CSP shRNA (h) Lentiviral Particles: sc-43709-V and CSP shRNA (m) Lentiviral Particles: sc-41928-V.

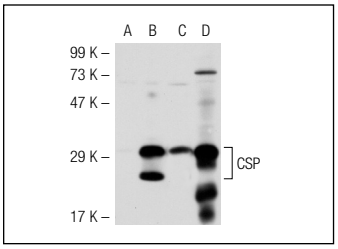
Molecular Weight of CSP: 30 kDa.

Positive Controls: CSP (m2): 293T Lysate: sc-126671, TE671 cell lysate: sc-2416 or mouse cerebellum extract: sc-2403.

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



CSP (H-128): sc-33154. Western blot analysis of CSP expression in non-transfected 293T: sc-117752 (**A**), mouse CSP transfected 293T: sc-126671 (**B**) and TE671 (**C**) whole cell lysates and mouse cerebellum tissue extract (**D**).

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.