SANTA CRUZ BIOTECHNOLOGY, INC.

Calretinin (N-18): sc-11644

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Calbindin D28K and Calretinin (also designated CR or 29 kDa Calbindin) are two closely related intracellular calcium-binding proteins belonging to the Troponin-C superfamily. Initially isolated from chick retina, Calretinin shares 58% identical residues with human Calbindin D28K. Calretinin is expressed in brain and is particularly abundant in auditory neurons with precisely timed discharges. Neurons in the nucleus accumbens containing Calretinin all possess nuclear indentations. Calretinin-immunoreactive boutons form asymmetrical and symmetrical synaptic specializations on spines, dendrites and somata. The symmetrical synaptic specializations have medium-sized spiny neurons and contact other Calretinin-immunoreactive somata. Calretinin is widely used as a immunocytochemical marker for mesothelioma.

CHROMOSOMAL LOCATION

Genetic locus: CALB2 (human) mapping to 16q22.2; Calb2 (mouse) mapping to 8 E1.

SOURCE

Calretinin (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Calretinin 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-11644 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Calretinin (N-18) is recommended for detection of Calretinin 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). Calretinin (N-18) is also recommended for detection of calretinin in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for Calretinin siRNA (h): sc-43347, Calretinin siRNA (m): sc-43348, Calretinin shRNA Plasmid (h): sc-43347-SH, Calretinin shRNA Plasmid (m): sc-43348-SH, Calretinin shRNA (h) Lentiviral Particles: sc-43347-V and Calretinin shRNA (m) Lentiviral Particles: sc-43348-V.

Molecular Weight of Calretinin: 29 kDa.

Positive Controls: Rat brain extract: sc-2392, rat cerebellum extract: sc-2398 or mouse brain extract: sc-2253.

RESEARCH USE

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

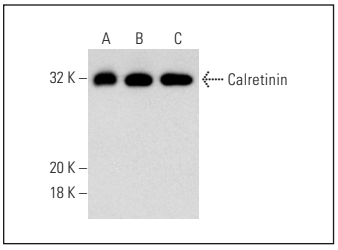
PROTOCOLS

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

STORAGE

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

DATA



Calretinin (N-18): sc-11644. Western blot analysis of Calretinin expression in rat brain (**A**), mouse brain (**B**) and rat cerebellum (**C**) tissue extracts.

SELECT PRODUCT CITATIONS

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2. Cross, S.S., et al. 2005. Expression of S100 proteins in normal human tissues and common cancers using tissue microarrays: S100A6, S100A8, S100A9 and S100A11 are all overexpressed in common cancers. Histopathology 46: 256-269.
3. Niculescu, M.D., et al. 2006. Dietary choline deficiency alters global and gene-specific DNA methylation in the developing hippocampus of mouse fetal brains. FASEB J. 20: 43-49.
4. Csillik, B., et al. 2006. Calcium-binding proteins in GABAergic calyciform synapses of the reticular nucleus. Neuroreport 17: 575-578.
5. Germanà, A., et al. 2007. Differential distribution of S100 protein and Calretinin in mechanosensory and chemosensory cells of adult zebrafish *(Danio rerio)*. Brain Res. 1162: 48-55.
6. Levanti, M.B., et al. 2008. Calretinin in the peripheral nervous system of the adult zebrafish. J. Anat. 212: 67-71.
7. Fu, Q.L., et al. 2008. Up-regulated endogenous erythropoietin/erythropoietin receptor system and exogenous erythropoietin rescue retinal ganglion cells after chronic ocular hypertension. Cell. Mol. Neurobiol. 28: 317-329.
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9. Jirsova, K., et al. 2010. Mesothelial proteins are expressed in the human cornea. Exp. Eye Res. 91: 623-629.