

Calgizzarin (84-S): sc-130401

BACKGROUND

Calgizzarin is a Ca²⁺-binding protein of the S-100 family. The proteins comprising the S-100 protein family have two EF-hand structures per molecule of protein. Expression of these family members occurs primarily in neurons or retinal photoreceptor cells, and may also be involved in a wide variety of cellular functions including cell growth, cell-cell communication, energy metabolism and intracellular signal transduction. They have also been linked to various pathologies, including Alzheimer's disease, schizophrenia and cancer. Calgizzarin is highly expressed in lung tissue and is also expressed in kidney, liver, brain, heart and smooth muscle. It is an important androgen-responsive protein produced by Sertoli cells and might play a role in spermatogenesis regulation.

REFERENCES

- Zimmer, D.B., Cornwall, E.H., Landar, A. and Song, W. 1995. The S-100 protein family: history, function, and expression. *Brain Res. Bull.* 37: 417-429.
- Allen, B.G., Durussel, I., Walsh, M.P. and Cox, J.A. 1997. Characterization of the Ca²⁺-binding properties of Calgizzarin (S-100C) isolated from chicken gizzard smooth muscle. *Biochem. Cell Biol.* 74: 687-694.
- Makino, E., Sakaguchi, M., Iwatsuki, K. and Huh, N.H. 2004. Introduction of an N-terminal pep apoptotic cell death. *J. Mol. Med.* 82: 612-620.
- Melle, C., Ernst, G., Schimmel, B., Bleul, A., Mothes, H., Kaufmann, R., Settmacher, U. and Von Eggeling, F. 2005. Different expression of Calgizzarin (S-100A11) in normal colonic epithelium, adenoma and colorectal carcinoma. *Int. J. Oncol.* 28: 195-200.
- Melle, C., Osterloh, D., Ernst, G., Schimmel, B., Bleul, A. and von Eggeling, F. 2005. Identification of proteins from colorectal cancer tissue by two-dimensional gel electrophoresis and SELDI mass spectrometry. *Int. J. Mol. Med.* 16: 11-17.
- DeSouza, L., Diehl, G., Rodrigues, M.J., Guo, J., Romaschin, A.D., Colgan, T.J. and Siu, K.W. 2005. Search for cancer markers from endometrial tissues using differentially labeled tags iTRAQ and cIAT with multidimensional liquid chromatography and tandem mass spectrometry. *J. Proteome Res.* 4: 377-386.
- Li, G., Gentil-Perret, A., Lambert, C., Genin, C. and Tostain, J. 2005. S100A1 and KIT gene expressions in common subtypes of renal tumours. *Eur. J. Surg. Oncol.* 31: 299-303.

CHROMOSOMAL LOCATION

Genetic locus: S100A11 (human) mapping to 1q21.3.

SOURCE

Calgizzarin (84-S) is a mouse monoclonal antibody raised against recombinant Calgizzarin of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Calgizzarin (84-S) is recommended for detection of Calgizzarin of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

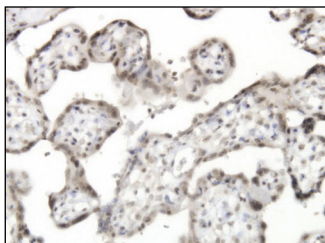
Suitable for use as control antibody for Calgizzarin siRNA (h): sc-60314, Calgizzarin shRNA Plasmid (h): sc-60314-SH and Calgizzarin shRNA (h) Lentiviral Particles: sc-60314-V.

Molecular Weight of Calgizzarin: 13 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) 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



Calgizzarin (84-S): sc-130401. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human placenta tissue showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Xiao, M.B., Jiang, F., Ni, W.K., Chen, B.Y., Lu, C.H., Li, X.Y. and Ni, R.Z. 2012. High expression of S100A11 in pancreatic adenocarcinoma is an unfavorable prognostic marker. *Med. Oncol.* 29: 1886-1891.

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.

PROTOCOLS

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