

Calgizzarin (B-5): sc-390250

BACKGROUND

Calgizzarin is a Ca^{2+} -binding protein of the S100 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.

CHROMOSOMAL LOCATION

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

SOURCE

Calgizzarin (B-5) is a mouse monoclonal antibody raised against amino acids 1-105 representing full length Calgizzarin of human origin.

PRODUCT

Each vial contains 200 μg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Calgizzarin (B-5) is available conjugated to agarose (sc-390250 AC), 500 μg /0.25 ml agarose in 1 ml, for IP; to HRP (sc-390250 HRP), 200 μg /ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390250 PE), fluorescein (sc-390250 FITC), Alexa Fluor® 488 (sc-390250 AF488), Alexa Fluor® 546 (sc-390250 AF546), Alexa Fluor® 594 (sc-390250 AF594) or Alexa Fluor® 647 (sc-390250 AF647), 200 μg /ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390250 AF680) or Alexa Fluor® 790 (sc-390250 AF790), 200 μg /ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

Calgizzarin (B-5) is recommended for detection of Calgizzarin of human origin by Western Blotting (starting dilution 1:100, 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), 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.

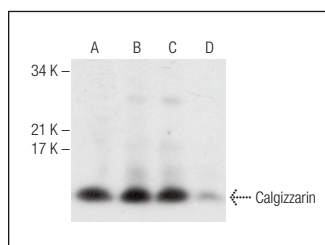
Molecular Weight of Calgizzarin: 13 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, PC-3 cell lysate: sc-2220 or SK-BR-3 cell lysate: sc-2218.

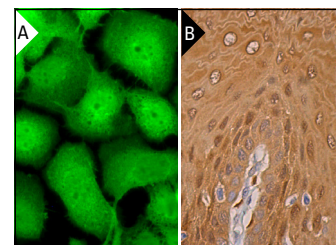
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Calgizzarin (B-5): sc-390250. Western blot analysis of Calgizzarin expression in HeLa (A), PC-3 (B), SK-BR-3 (C) and CCRF-CEM (D) whole cell lysates.



Calgizzarin (B-5): sc-390250. Immunofluorescence staining of formalin-fixed A-431 cells showing cytoplasmic and nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic and nuclear staining of squamous epithelial cells (B).

SELECT PRODUCT CITATIONS

1. Bizzarro, V., et al. 2019. Mesoglycan induces keratinocyte activation by triggering Syndecan-4 pathway and the formation of the annexin A1/S100A11 complex. *J. Cell. Physiol.* 234: 20174-20192.
2. Wu, J., et al. 2020. Host cell factors stimulate HIV-1 transcription by antagonizing substrate-binding function of Siah1 ubiquitin ligase to stabilize transcription elongation factor ELL2. *Nucleic Acids Res.* 48: 7321-7332.

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.

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