

cystatin B (F-5): sc-166561

BACKGROUND

Cystatin A (also designated STF1, STFA, stefin A or cystatin AS) and cystatin B (also designated PME, CST6, STFB, CPI-B, stefin B and liver thiol proteinase inhibitor) are thiol protease inhibitors that form complexes with Papain and the cathepsins B, H and L. Cystatin A, a cytoplasmic protein, is one of the precursor proteins of the cornified cell envelope in keratinocytes and plays a role in epidermal development and maintenance. Cystatin B protects against intracellular proteases leaking out of lysosomes and is primarily expressed in heart, liver and kidney.

CHROMOSOMAL LOCATION

Genetic locus: CSTB (human) mapping to 21q22.3; Cstb (mouse) mapping to 10 C1.

SOURCE

cystatin B (F-5) is a mouse monoclonal antibody raised against amino acids 51-98 mapping at the C-terminus of cystatin B of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

cystatin B (F-5) is available conjugated to agarose (sc-166561 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166561 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166561 PE), fluorescein (sc-166561 FITC), Alexa Fluor® 488 (sc-166561 AF488), Alexa Fluor® 546 (sc-166561 AF546), Alexa Fluor® 594 (sc-166561 AF594) or Alexa Fluor® 647 (sc-166561 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166561 AF680) or Alexa Fluor® 790 (sc-166561 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

cystatin B (F-5) is recommended for detection of cystatin B of mouse, rat and 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 cystatin B siRNA (h): sc-44431, cystatin B siRNA (m): sc-44743, cystatin B shRNA Plasmid (h): sc-44431-SH, cystatin B shRNA Plasmid (m): sc-44743-SH, cystatin B shRNA (h) Lentiviral Particles: sc-44431-V and cystatin B shRNA (m) Lentiviral Particles: sc-44743-V.

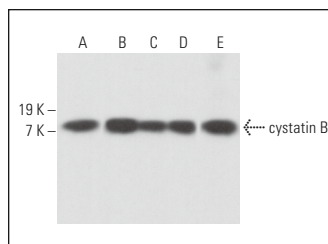
Molecular Weight of cystatin B: 12 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, EOC 20 whole cell lysate: sc-364187 or U-87 MG cell lysate: sc-2411.

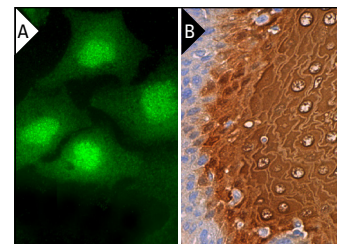
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



cystatin B (F-5): sc-166561. Western blot analysis of cystatin B expression in U-87 MG (A), RAW 264.7 (B), EOC 20 (C) and c4 (D) whole cell lysates and rat heart tissue extract (E).



cystatin B (F-5): sc-166561. Immunofluorescence staining of formalin-fixed Hep G2 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

- Rodrigues, L., et al. 2019. Comparison of salivary proteome of children with different sensitivities for bitter and sweet tastes: association with body mass index. *Int. J. Obes.* 43: 701-712.
- Lu, L., et al. 2022. Expression and regulation of a novel decidual cells-derived estrogen target during decidualization. *Int. J. Mol. Sci.* 24: 302.
- Gumusgoz, E., et al. 2024. CSTB gene replacement improves neuroinflammation, neurodegeneration and ataxia in murine type 1 progressive myoclonus epilepsy. *Gene Ther.* 31: 234-241.

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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