

# cystatin A (B-11): sc-376759

## 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: CSTA (human) mapping to 3q21.1.

## SOURCE

cystatin A (B-11) is a mouse monoclonal antibody raised against amino acids 51-98 mapping at the C-terminus of cystatin A of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

cystatin A (B-11) is available conjugated to agarose (sc-376759 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376759 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376759 PE), fluorescein (sc-376759 FITC), Alexa Fluor<sup>®</sup> 488 (sc-376759 AF488), Alexa Fluor<sup>®</sup> 546 (sc-376759 AF546), Alexa Fluor<sup>®</sup> 594 (sc-376759 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-376759 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-376759 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-376759 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## STORAGE

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

## APPLICATIONS

cystatin A (B-11) is recommended for detection of cystatin A 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 cystatin A siRNA (h): sc-44430, cystatin A shRNA Plasmid (h): sc-44430-SH and cystatin A shRNA (h) Lentiviral Particles: sc-44430-V.

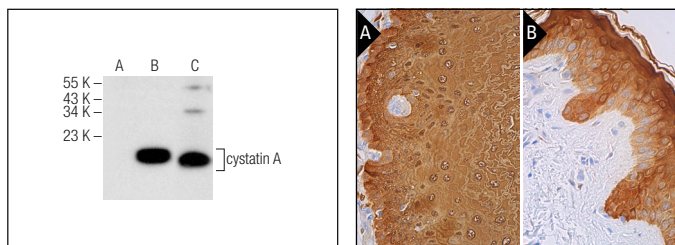
Molecular Weight of cystatin A: 11 kDa.

Positive Controls: human hair protein extract or human cystatin A transfected HEK293T whole cell lysate.

## 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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> 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 A (B-11): sc-376759. Western blot analysis of cystatin A expression in non-transfected (A) and human cystatin A transfected (B) HEK293T whole cell lysates and human hair protein extract (C).

cystatin A (B-11): sc-376759. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic and nuclear staining of squamous epithelial cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic and nuclear staining of keratinocytes, Langerhans cells and melanocytes (B).

## SELECT PRODUCT CITATIONS

- Hassan, A., et al. 2019. Adolescent idiopathic scoliosis associated POC5 mutation impairs cell cycle, cilia length and centrosome protein interactions. *PLoS ONE* 14: e0213269.
- Bangsuwan, P., et al. 2021. Expression of cathepsin B and cystatin A in oral lichen planus. *J. Int. Soc. Prev. Community Dent.* 11: 566-573.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.