

cystatin B (C-16): sc-33274

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.

REFERENCES

- Ritonja, A., et al. 1985. Amino acid sequence of the intracellular cysteine proteinase inhibitor cystatin B from human liver. *Biochem. Biophys. Res. Commun.* 131: 1187-1192.
- Jerala, R., et al. 1988. Cloning a synthetic gene for human stefin B and its expression in *E. coli*. *FEBS Lett.* 239: 41-44.

CHROMOSOMAL LOCATION

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

SOURCE

cystatin B (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of cystatin B 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-33274 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

cystatin B (C-16) is recommended for detection of cystatin B 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), 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).

cystatin B (C-16) is also recommended for detection of cystatin B in additional species, including equine, canine and porcine.

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.

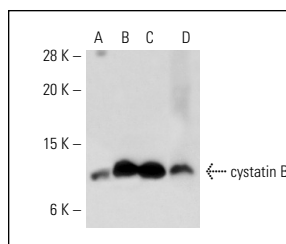
Molecular Weight of cystatin B: 12 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, c4 whole cell lysate: sc-364186 or EOC 20 whole cell lysate: sc-364187.

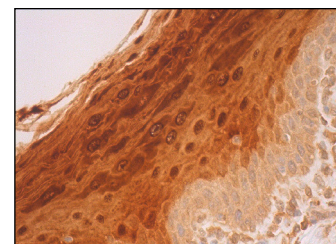
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



cystatin B (C-16): sc-33274. Western blot analysis of cystatin B expression in U-87 MG (A), c4 (B) and EOC 20 (C) whole cell lysates and mouse lymph node tissue extract (D).



cystatin B (C-16): sc-33274. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic and nuclear staining of squamous epithelial cells.

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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **cystatin B (F-5): sc-166561** or **cystatin B (RJMw 2E7): sc-32802**, our highly recommended monoclonal alternatives to cystatin B (C-16).