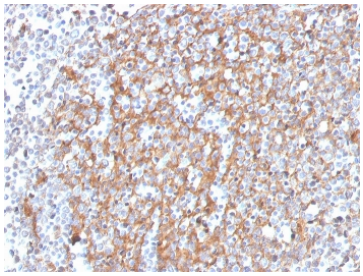
Cystatin A Antibody / CSTA Microarray Specificity Validated Antibody [clone CSTA/3553] (V8533)

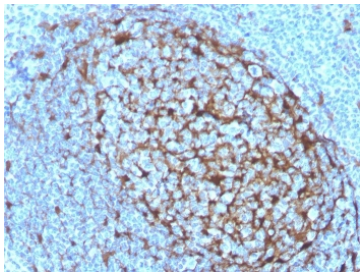
Catalog No.	Formulation	Size
V8533-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8533-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8533SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

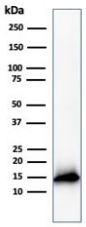
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	CSTA/3553
Purity	Protein G affinity chromatography
UniProt	P01040
Localization	Cell surface, cytoplasmic, nuclear
Applications	Western blot: 2-4ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT
Limitations	This Cystatin A Antibody / CSTA Microarray Specificity Validated Antibody is available for research use only.



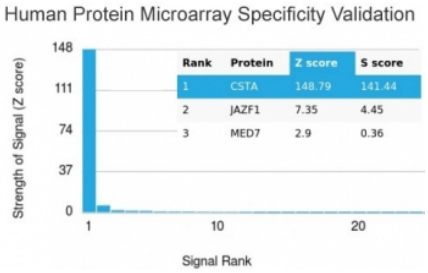
Cystatin A Antibody Prostate Tissue IHC. Immunohistochemistry of Cystatin A / CSTA in FFPE human prostate tissue using mouse monoclonal Cystatin A antibody, clone CSTA/3553. HRP-DAB brown staining highlights cytoplasmic labeling of epithelial cell populations within glandular structures, consistent with intracellular protease inhibitor expression, while surrounding stromal cells show lower staining and nuclei are counterstained blue. Heat induced epitope retrieval was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling prior to staining.



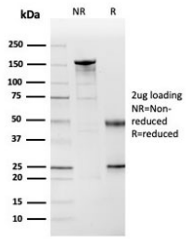
Cystatin A Antibody Lymphoid Tissue IHC. Immunohistochemistry of Cystatin A / CSTA in FFPE human tonsil tissue using mouse monoclonal Cystatin A antibody, clone CSTA/3553. HRP-DAB brown staining highlights cytoplasmic labeling within epithelial components of tonsillar crypt regions, while surrounding lymphoid cells show lower staining, consistent with epithelial-associated expression of this intracellular protease inhibitor, and nuclei are counterstained blue. Heat induced epitope retrieval was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling prior to staining.



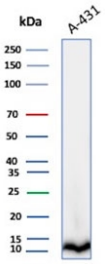
Cystatin A Antibody ThP-1 WB. Western blot analysis of Cystatin A / CSTA in human ThP-1 cell lysate using mouse monoclonal Cystatin A antibody, clone CSTA/3553. A band is detected at approximately 11 kDa, consistent with the predicted molecular weight of CSTA, supporting detection of this intracellular cysteine protease inhibitor in monocyte-derived cells.



Cystatin A Antibody Microarray Specificity Validation. Protein microarray analysis of Cystatin A / CSTA using mouse monoclonal Cystatin A antibody, clone CSTA/3553, across a HuProt(TM) array containing more than 19,000 full-length human proteins demonstrates highly selective binding to CSTA with minimal off-target interaction. The signal profile shows strong enrichment for CSTA relative to other proteins on the array, supporting high specificity in a proteome-wide context. Z-score represents the strength of antibody binding signal expressed as standard deviations above the mean array signal, while S-score reflects the separation between the top-ranked target and the next highest signal, confirming selective recognition of Cystatin A.



SDS-PAGE analysis of purified, BSA-free Cystatin A antibody (clone CSTA/3553) as confirmation of integrity and purity.



Cystatin A Antibody A431 WB. Western blot analysis of Cystatin A / CSTA in human A431 cell lysate using mouse monoclonal Cystatin A antibody, clone CSTA/3553. A band is detected at approximately 11 kDa, consistent with the predicted molecular weight of CSTA, supporting detection of this intracellular cysteine protease inhibitor in epithelial-derived cells.

Description

Cystatin A (CSTA), also known as stefin A, is an intracellular cysteine protease inhibitor belonging to the cystatin superfamily that regulates the activity of cathepsins and other lysosomal proteases. Cystatin A Antibody / CSTA Microarray Specificity Validated Antibody (clone CSTA/3553) is designed as a reference reagent for detecting CSTA with high specificity across multiple experimental systems. Cystatin A antibody, also referred to as CSTA antibody or stefin A antibody in the literature, is widely used in studies of epithelial biology, barrier function, and protease regulation.

CSTA is predominantly expressed in epithelial tissues, including skin, esophagus, and other stratified squamous epithelia, where it plays a key role in maintaining cellular integrity and protecting against protease-mediated damage. By inhibiting cysteine proteases such as cathepsins B, H, and L, Cystatin A contributes to the regulation of protein turnover, cell differentiation, and tissue homeostasis. Its function is particularly important in tissues exposed to environmental stress, where protease activity must be tightly controlled.

In addition to its role in normal epithelial physiology, altered CSTA expression has been associated with a range of pathological conditions, including cancer progression and inflammatory skin disorders. Changes in Cystatin A levels may reflect shifts in protease activity within the tumor microenvironment or disruptions in epithelial differentiation, making it a useful marker for studying disease-related processes.

At the cellular level, CSTA is localized primarily to the cytoplasm, consistent with its role as an intracellular protease inhibitor. In immunohistochemistry, staining is typically observed in epithelial cells with strong cytoplasmic distribution, often highlighting stratified epithelial layers and differentiated cell populations. This staining pattern provides valuable insight into tissue architecture and epithelial integrity.

Western blot analysis of CSTA generally detects a band at approximately 11 kDa, consistent with the predicted molecular weight of this small inhibitor protein. Detection is typically robust in epithelial-derived samples where expression levels are high.

A defining feature of this antibody is its validation using protein microarray analysis across more than 19,000 full-length human proteins, demonstrating highly selective binding to CSTA with minimal off-target interaction. The Z-score reflects the strength of antibody binding signal relative to background, while the S-score represents the separation between the top-ranked target and the next highest signal, confirming target specificity in a proteome-wide context.

The mouse monoclonal clone CSTA/3553 antibody provides reliable and specific detection of CSTA in research applications. Its combination of microarray-confirmed specificity and performance in immunohistochemistry and western blot makes it well suited as an anchor antibody for studies of epithelial differentiation, protease regulation, and tissue integrity.

This antibody is part of a broader antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the Cystatin A Antibody / CSTA Microarray Specificity Validated Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 1-98 from the human protein was used as the immunogen for the Cystatin A antibody.

Storage

Store the Cystatin A antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Cystatin A antibody, CSTA antibody, Stefin A antibody, Epidermal cystatin antibody, Cysteine protease inhibitor antibody

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