

## Product Information

### MONOCLONAL ANTI-CYSTATIN A, CLONE WR-23/2/3/3 Bioreactor Grade Culture Supernatant

Product Number **C 3095**

#### Product Description

Monoclonal Anti-Cystatin A (mouse IgG1 isotype) is derived from the WR-23/2/3/3 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with cystatin A of human origin. The isotype is determined using Sigma ImmunoType<sup>™</sup> Kit (Product code ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Product code ISO-2).

Monoclonal Anti-Cystatin A reacts specifically with human cystatin A (11-13 kDa). The product may be used for immunoblotting<sup>1</sup> and immunohistochemistry (protease<sup>1</sup> - and trypsin-treated, formalin-fixed, paraffin-embedded tissues).

Cystatins are endogenous inhibitors of lysosomal proteases that form a superfamily that is classified into three families (families 1, 2 and 3) according to the homology of the amino acid sequences.<sup>2,3</sup> Cystatin A (also termed acid cysteine proteinase inhibitor, ACPI, stefin A, and epidermal SH- proteinase inhibitor) belongs to family 1 of the cystatin superfamily of proteins. These proteins are natural inhibitors of cysteine proteinases like cathepsin B, H, L, and S.<sup>4</sup> Cystatin A, a 98 amino acid protein (11-13 kDa), is detected in normal squamous epithelium, follicular dendritic cells in lymphoid tissues, thymic epithelial cells (in Hassall's corpuscles and in medulla), liver cells, granulocytes and basal epithelial cells in the prostate.<sup>1</sup> Cystatin A is thought to be a tumor suppressor, since an inverse correlation seems to exist between the level of cystatin A and tumor progression, in several malignancies.<sup>1,5-7</sup> Also, Cystatin A has been implicated in aging of tissues,<sup>8</sup> Alzheimer disease,<sup>9</sup> viral infections and inflammatory processes.<sup>10</sup> Antibodies that react specifically with cystatin A are useful tools for studying structure-function relationships and cellular or subcellular localization of the molecule.<sup>11</sup>

#### Reagents

The product is supplied as a culture supernatant with 15 mM sodium azide as a preservative.

#### Precautions and Disclaimer

Due to the sodium azide content a material safety sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

#### Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

#### Product Profile

A minimum working dilution of 1:4,000 is determined by indirect immunoperoxidase staining of formalin-fixed, paraffin-embedded sections of human thymus.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working dilution by titration test.

#### References

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