# Mouse Anti-Human Cystatin S Monoclonal Antibody

**Cat. No.** CAB11521MH **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Mouse Monoclonal Antibody to Human Cystatin S |
| **Species** | Human |
| **Source** | Mouse |
| **Antigen Description** | Cystatin-S, also known as Cystatin-4, Salivary acidic protein 1, Cystatin-SA-III and CST4, is a secreted protein which belongs to the cystatin family. Cystatin-4 / CST4 is expressed in submandibular and sublingual saliva but not in parotid saliva (at protein level). It is also expressed in saliva, tears, urine and seminal fluid. The cystatin superfamily encompasses proteins that contain multiple cystatin-like sequences. Some of the members are active cysteine protease inhibitors, while others have lost or perhaps never acquired this inhibitory activity. There are three inhibitory families in the superfamily, including the type 1 cystatins (stefins), type 2 cystatins and the kininogens. The type 2 cystatin proteins are a class of cysteine proteinase inhibitors found in a variety of human fluids and secretions. Cystatin-4 / CST4 strongly inhibits papain and ficin, partially inhibits stem bromelain and bovine cathepsin C, but does not inhibit porcine cathepsin B or clostripain. Papain is inhibited non-competitively. Cystatin-4 / CST4 is an S-type cystatin, based on its high level of expression in saliva, tears and seminal plasma. The specific role in these fluids is unclear but antibacterial and antiviral activity is present, consistent with a protective function. |
| **Specificity** | Human Cystatin S / CST4. No cross-reactivity with human cell lysate ( 293 cell line ) in ELISA. |

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| **Immunogen** | Recombinant Human Cystatin S / CST4 Protein |
| **Isotype** | Mouse IgG2a |
| **Clone** | 10F3F3 |
| **Applications** | WB; ELISA |
| **Dilution** | Western blot: This antibody can be used at 1-2 µg/mL with the appropriate secondary reagents to detect Human CST4 in WB. Using a DAB detection system, the detection limit for Human CST4 is approximately 2 ng/lane under non-reducing conditions and 100 ng/lane under reducing conditions.ELISA: This antibody can be used at 0.5-1 µg with the appropriate secondary reagents to detect Human CST4. The detection limit for Human CST4 is approximately 0.00975 ng/well. |
| **Preparation** | This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, human cell-derived, recombinant Human Cystatin S / CST4. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography. |
| **Format** | 0.2 µm filtered solution in PBS with 5% trehalose |
| **Storage** | This antibody can be stored at 2-8 °C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 to -70°C. Preservative-Free.Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles. |

## GENE INFORMATION

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| **Gene Name** | CST4 cystatin S [ Homo sapiens ] |

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| **Official Symbol** | CST4 |
| **Synonyms** | CST4; cystatin S; cystatin-S; cystatin 4; cystatin-4; cystatin-SA-III; salivary acidic protein 1; MGC71923; |
| **Gene ID** | 1472 |
| **mRNA Refseq** | NM_001899 |
| **Protein Refseq** | NP_001890 |
| **MIM** | 123857 |
| **UniProt ID** | P01036 |
| **Chromosome Location** | 20p11.2 |
| **Pathway** | Salivary secretion, organism-specific biosystem; Salivary secretion, conserved biosystem; |
| **Function** | cysteine-type endopeptidase inhibitor activity; peptidase inhibitor activity; |

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