

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Cystatin F in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) Cystatin A, B, C, D, E/M, S, recombinant mouse (rm) Cystatin/Stefin Homolog, rhFetuin A, rhFetuin B, rhHPRG, rhKininogen, or rhKininostatin is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 292103
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Cystatin F Gly20-His145 Accession # O76096
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human Cystatin F (Catalog # 1889-PI) under non-reducing conditions only
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Cystatin F (Catalog # 1889-PI), see our available Western blot detection antibodies

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Cystatin F, also known as leukocystatin and CMAP (Cystatin-like Metastasis-Associated Protein), is a member of the cystatin superfamily (1-3). Cystatin F is selectively expressed by hematopoietic cells and may be a biomarker for both liver metastasis and inflammatory lung disorders (3, 4). As a cysteine protease inhibitor, it shows selectivity towards cathepsin L and legumain (1, 2, 5). Compared to other secreted cystatins including C, D, E/M, S, SA and SN, which contain two intra disulfide bonds, cystatin F has two extra Cys residues that may be involved in inter disulfide bonds. Indeed, rhCystatin F showed disulfide bond-linked dimer formation, which was also the case for an *E. coli* expressed fusion protein containing mature human cystatin F and glutathione S-transferase (2).

References:

1. Ni, J. *et al.* (1998) J. Biol. Chem. **273**:24797.
2. Halfon, S. *et al.* (1998) J. Biol. Chem. **273**:16400.
3. Utsunomiya, T. *et al.* (2002) Clin Cancer **8**:2591
4. Werle, B. *et al.* (2003) Biol. Chem. **384**:281.
5. Gruninger-Leitch, F. *et al.* (2000) Nat. Biotechnol. **18**:66.