


CA1047	HumanKine™ Cytostatin C			
	Prod. No. S2305-10UG For Research Use Only Not intended for use in humans or animals	lot #: PR1XXXXXX XXXX	Orders & Support Web	866 372-7442 support@primorigen.com www.primorigen.com

Pack Size	10 µg
Species	Human
Expression System	HEK 293*
	Animal-derived product free
Molecular Mass	12 to 13 kDa, monomer, non-glycosylated
Activity	Typically 0.3 to 1.5 µM IC50
Purity	≥ 95%
Endotoxin	≤ 1 EU/µg

Background:

Recombinant human Cystatin C expressed in engineered human cells. Cystatin C is a 12 to 13 kDa monomer and belongs to the Cystatin superfamily. Native Cystatin C in human urine is found in two different forms: one with pI 9.2 and the other with pI 7.8 by elimination of small basic peptides or amino acids from the N-terminal end of protein. Cystatin C is used as a biomarker of kidney function. Recently, it has been studied for its role in predicting new-onset or deteriorating cardiovascular disease. It also seems to play a role in brain disorders involving amyloid, such as Alzheimer's disease. Cystatin C was reported to antagonize transforming growth factor beta signaling in normal and cancer cells.

Note: Representative data are shown below (not Lot-specific).

Formulation:

Lyophilized from a 0.2 micron filtered solution in PBS

Reconstitution:

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile PBS containing 0.1% endotoxin-free recombinant human serum albumin.

Storage and Stability:

Lyophilized products are stable for one year at -20°C to -80°C from date of receipt. Store only at -20°C to -80°C in working aliquots. Avoid repeated freeze-thaw cycles.

Quality Control Testing

Assay:

The inhibitory function of Cystatin C on papain's protease activity was measured by a colorimetric assay using L-BAPA as substrate. IC50 value was measured at 5 to 20 µg/mL (0.3 to 1.5 µM) with a range of 1.56µg/mL to 50µg/mL Cystatin C in presence of 0.55µM papain and 0.44µM L-BAPA.

Purity Confirmation:

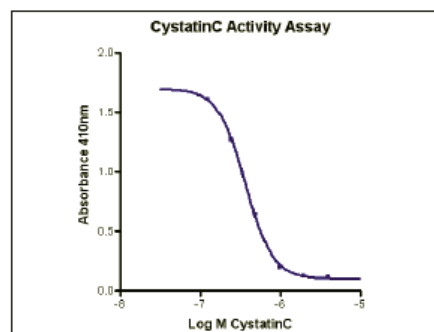
The protein was resolved by SDS-polyacrylamide gel electrophoresis and the gel was stained with Coomassie blue.

References:

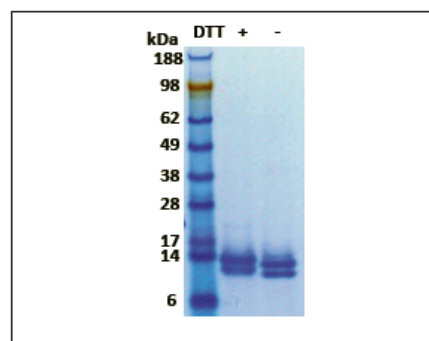
Abrahamson M., (1994) *Meth Enzymol* 244, 685-700
 Rivenbark, A.G., et al, (2009) *Frontiers Biosci* 14, 453-462

*All HumanKine™ cytokines are expressed in HEK 293 cells. HumanKine™ is a trademark of HumanZyme Inc.

A. Activity Assay



B. SDS-PAGE



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