3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

# Product Information

**HumanKine® Cystatin C, human recombinant, expressed in HEK 293 cells**

Catalog Number **H5041**
Storage Temperature –20 °C

## Product Description

HumanKine® human Cystatin C is expressed as a non-glycosylated monomer in human 293 cells and has an apparent molecular mass of 12–13 kDa.

Cystatin C belongs to the cystatin superfamily. Two isoforms (pI = 7.8, 9.2) of native Cystatin C are found in human urine differentiated 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.[1] Recently, it has been studied for its role in predicting new-onset or deteriorating cardiovascular disease.[2] It also seems to play a role in brain disorders involving amyloid, such as Alzheimer's disease.[3] Cystatin C was reported to antagonize transforming growth factor beta signaling in normal and cancer cells.[4]

This product is lyophilized from a PBS solution.

$IC_{50}$: ≤5 μM

The inhibitory function of Cystatin C on the protease activity of papain was measured by a colorimetric assay using L-BAPA as the substrate.

Purity: ≥95% (SDS-PAGE)

Endotoxin level: ≤1 EU/μg

## Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

## Preparation Instructions

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/Stability

Store the product at –20 °C. The lyophilized product remains active for one year at –20 °C.

Upon reconstitution, the cytokine can be stored at 2–8 °C for short term only, or at –20 °C to –80 °C in aliquots for long term. Avoid repeated freeze-thaw cycles.

## References

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3. Mi, W., et al. Cystatin C inhibits amyloid-β deposition in Alzheimer's disease mouse models. Nat. Genet., **39**, 1440–1442 (2007).
4. Sokol, J.P., and Schiemann, W.P., Cystatin C antagonizes transforming growth factor beta signaling in normal and cancer cells. Mol. Cancer Res., Mar **2**(3), 183-95 (2004).
5. Abrahamson M., Meth. Enzymol., **244**, 685-700 (1994).
6. Rivenbark, A.G. et al., Frontiers Biosci., **14**, 453-462 (2009).

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