

## CTRC

## Native Human Chymotrypsin Active

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                  |                  |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| <b>Catalog No.</b>              | CSI13571A<br>CSI13571B                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Quantity:</b> | 100 µg<br>1.0 mg |
| <b>Alternate Names:</b>         | Chymotrypsin-C, Caldecrin                                                                                                                                                                                                                                                                                                                                                                                                                                              |                  |                  |
| <b>Description:</b>             | Chymotrypsin is a digestive enzyme that can perform proteolysis. Chymotrypsin preferentially cleaves peptide amide bonds where the carboxyl side of the amide bond (the P1 position) is a tyrosine, tryptophan, or phenylalanine. Increased concentrations of this enzyme and/or its zymogen have been found in patients with cystic fibrosis.                                                                                                                         |                  |                  |
| <b>UniProt ID:</b>              | Q99895                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |                  |
| <b>Gene ID:</b>                 | 11330                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                  |                  |
| <b>Source:</b>                  | Human pancreas                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                  |                  |
| <b>Molecular Weight:</b>        | 25 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |                  |
| <b>Formulation:</b>             | Lyophilized salt-free white solid.                                                                                                                                                                                                                                                                                                                                                                                                                                     |                  |                  |
| <b>Purity:</b>                  | ≥ 95% pure by SDS PAGE<br>This product shows no trypsin activity when assayed against Nα-benzoyl-L-arginine-p-nitroanilide                                                                                                                                                                                                                                                                                                                                             |                  |                  |
| <b>Extinction Coefficient:</b>  | $E^{0.1\%}_{280\text{nm}} = 1.9$                                                                                                                                                                                                                                                                                                                                                                                                                                       |                  |                  |
| <b>Biological Activity:</b>     | 40-70 units per mg protein. One unit is defined as the amount of enzyme that hydrolyzes one umole of Suc-Ala-Ala-Pro-Phe-pNA per minute at 21°C, pH 8.0                                                                                                                                                                                                                                                                                                                |                  |                  |
| <b>Storage &amp; Stability:</b> | Store as supplied at -20°C to -80°C for at least 1 year. Upon reconstitution, store in working aliquots at -20°C to -80°C. <b>Avoid repeated freeze/thaw cycles.</b>                                                                                                                                                                                                                                                                                                   |                  |                  |
| <b>Biohazard:</b>               | Donor tissues were tested and found to be negative for HBsAg, anti-HCV, anti-HBc, and negative for anti-HIV 1 & 2 by FDA-required tests. However, because no test method can offer complete assurance that infectious agents are absent, this material should be handled at Bio-Safety Level 2 (BSL 2) as recommended for potentially infectious human serum or blood specimen in the CCD/NIH manual "Biosafety in Microbiological and Biomedical Laboratories", 2009. |                  |                  |

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