



CERTIFICATE OF ANALYSIS

Clzyme AS, Catalog # 005-1090
GMP Grade – For *ex vivo* Use Only

Product: Aseptically dispensed mixture of purified Class 1 (60%) and Class 2 (40%) Collagenase from *C. histolyticum* and purified Neutral Protease from *B. polymyxa*

Lot # 311190523	SPECIFICATION	RESULT
Appearance	White lyophilized cake	White lyophilized cake
Total Wünsch Activity ¹	30 – 40 Units/vial	30.4 Units/vial
Total Neutral Protease Activity ²	220,000 – 350,000 Units/vial	282,777 Units/vial
Endotoxin EU/mg protein ³	< 25.0 EU/OD 280 nm	2.5 EU/OD 280 nm
Total Collagen Degrading Activity ⁴	Report Only	352,267 Units/vial

STORAGE: 2-8°C

DATE OF MANUFACTURE: 23 May 2019
EXPIRY DATE: May 2021

Signature:

Andrew Breite, Director of Quality Assurance

3 Jun 2019

- ¹ Wünsch E, Heidrich H-G. Zur quantitativen bestimmung der kollagenase. *Hoppe-Seyler's Zeitschrift Physiologische Chemie* 333 (1963);149-151
- ² Breite AG, et. al. Tissue Dissociation Enzyme Neutral Protease Assessment. *Transplantation Proceedings* 42 (2010);2052-54
- ³ Charles River Endosafe® PTS Endotoxin Assay
- ⁴ McCarthy RC, et. al. Development and Characterization of a Collagen Degradation Assay to Assess Purified Collagenase Used in Islet Isolation. *Transplantation Proceedings* 40 (2008); 339-342