



CERTIFICATE OF ANALYSIS

Collagenase HA, Catalog # 001-1000
GMP Grade – For *ex vivo* Use Only

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

Lot # 241180419	SPECIFICATION	RESULT
Appearance	White lyophilized cake	White lyophilized cake
Specific Wunsch Activity ¹	> 2.80 Units/mg	4.95 Units/mg
Total Wunsch Activity	> 1900 Units/bottle	2,458 Units/bottle
Endotoxin EU/mg protein ²	< 10.0 EU/mg	1.40 EU/mg
Total Collagen Degrading Activity ³	Report Only	28,159,494 Units/bottle
Total Protein ⁴	Report Only	496.5 mg/bottle
Trypsin Like Activity (BAEE Unactivated) ⁵	Report Only	Below detection limit
Clostripain (BAEE Activated) ⁵	Report Only	0.020 U/mg

STORAGE: < -20°C

DATE OF MANUFACTURE: 19 Apr 2018

EXPIRY DATE: April 2020

Signature:

Andrew Breite, Director of Quality Assurance

1 May 2018

- ¹ Wunsch E, Heidrich H-G. Zur quantitativen bestimmung der kollagenase. *Hoppe-Seyley's Zeitschrift Physiologische Chemie* 333 (1963);149-151
- ² Charles River Endosafe[®] PTS Endotoxin Assay
- ³ 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
- ⁴ Based on absorbance at 280 nm using an extinction coefficient of $\epsilon=1.41$
- ⁵ Mitchell WM, Harrington WF. Clostripain. *Methods In Enzymology* (1970) 19;635-642