

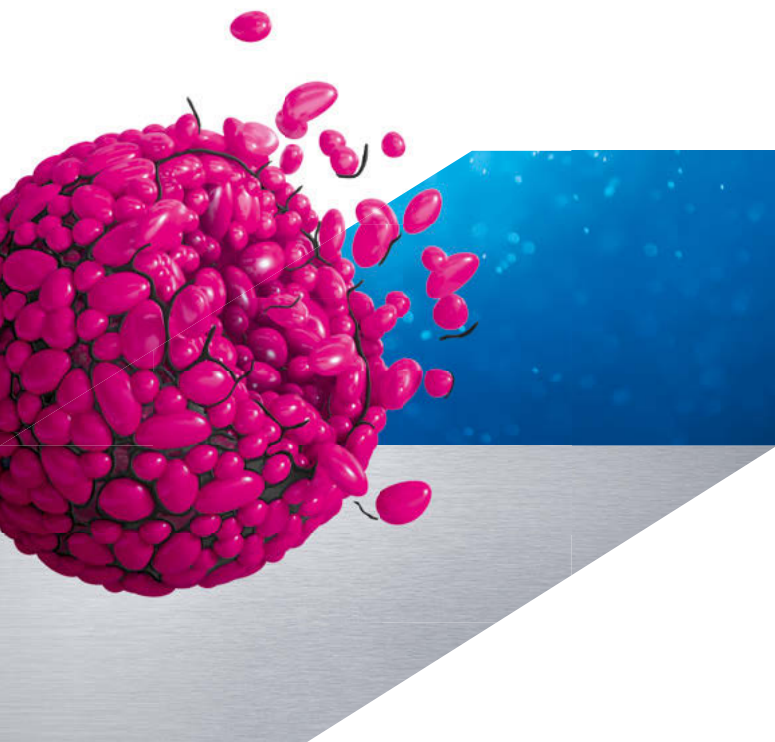
Liberase MNP-S, GMP Grade

Optimal cell isolation outcomes for downstream applications

Liberase MNP-S is a Sterile-A*, high-quality blend of extremely purified Collagenase I/II and Thermolysin developed for use in a variety of downstream clinical applications, including:

- chondrocyte isolation
- stem cell isolation from adipose tissue
- stem cell isolation from tumors
- tissue engineering

* Sterile-A according to European Pharmacopeia and U.S. Pharmacopeia



- **Maximum cell yield, viability, and functionality**
Use of high-specific-activity blends with reduced clostripain, trypsin, and endotoxin content maximizes yield of viable, functional cells.
- **Reduced contamination risk**
Manufactured free of any mammalian- or avian-derived raw materials, avoiding the risk of transmission of animal diseases.
- **High experimental reproducibility**
High lot-to-lot consistency due to optimized enzyme fermentation and purification processes results in increased experimental reproducibility, ultimately saving time and resources.
- **Flexible enzyme portfolio**
Custom sizes and blends are available upon request to better serve your unique application needs.
- **Specific residual assay**
Highly sensitive assay developed specifically for detection of Liberase enzyme verifies removal from your final product.

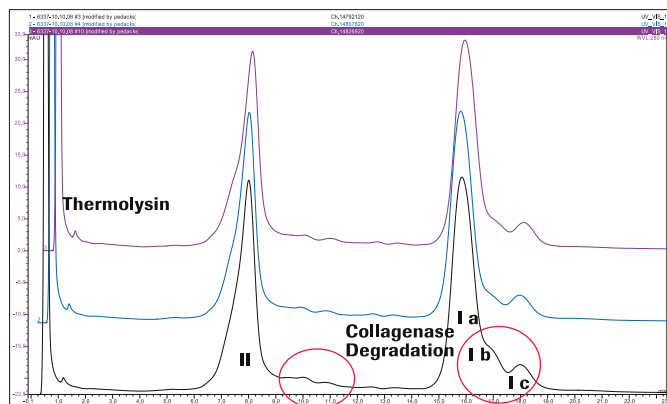


Figure 1: Liberase MNP-S with medium content of Thermolysin shows minimal degradation of Collagenase I and II reproducibly in three different lots due to a proprietary blending process.

Specifications

Liberase MNP-S, GMP Grade, Sterile A

| | |
|---|---|
| Catalog number | 06 297 790 001 |
| Content | Collagenase I/II blend plus Thermolysin |
| Appearance | white lyophilizate |
| Total protein | 6.9 mg/vial |
| Activity (Wünsch, calculated) | 19 - 32 U/vial |
| Activity (Thermolysin, calculated) | 19,140 - 37,000 U/vial |
| Endotoxin | <50 EU/mg |
| Stability | 36 months at -15 to -25°C |



Figure 2: The blade structure of Liberase formulations allows the enzymes to dissolve efficiently in solution.

Ordering information

| Related products | Pack size | Catalog number |
|----------------------------------|----------------------|----------------------------------|
| Liberase MNP-S, Sterile-A | 35 mg | 05 578 566 001 |
| Liberase MTF C/T, GMP Grade | 2 x 500 mg | 05 339 880 001 |
| Liberase T-Flex, Research Grade | 500 mg | 05 989 132 001 |
| DNase I, recombinant, GMP Grade | 4 kU | 03 724 751 103 |
| DNase I, recombinant | 10 kU 510 kU | 03 724 778 103 05 952 077 103 |
| DNase I, recombinant, RNase-free | custom fill | 03 539 121 103 |
| Trypsin, recombinant, GMP Grade | 3.5 MU 1 g | 03 358 658 103 06 369 880 103 |
| Residual Protein Liberase Kit | kit for 96 reactions | 07 758 693 001 |
| Collagenase Activity Test | kit for 96 reactions | 08 074 461 001 |
| Residual Trypsin Test Kit | kit for 96 reactions | 07 568 975 001 |

Regulatory disclaimer

For further processing only.

Intended use: Blended proteolytic enzyme for tissue dissociation.

Trademark

LIBERASE is a trademark of Roche. All other product names and trademarks are the property of their respective owners.

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