

# Application Note

## Isolation of Human Cardiomyocytes with Collagenase NB 8 Broad Range

### Product Information Collagenase NB 8 Broad Range

**Collagenase NB 8 Broad Range** is designed for dissociation of different tissues to isolate various cell types, e.g. human cardiomyocytes. Purified Collagenase NB 8 Broad Range is characterized by an increased collagenase activity and reduced levels of other proteases and bacterial endotoxins.

#### Specification

Collagenase activity	≥ 0.9 U/mg (PZ*)
Neutral protease activity	≤ 0.2 U/mg (DMC)
Trypsin-like activities	≤ 0.5 U/mg (BAEE)
Endotoxin	≤ 100 EU/mg

\* PZ units acc. to Wunsch

The lot-specific activities of Collagenase NB 8 Broad Range are stated on the certificate of analysis which is attached to every delivery.

#### Storage conditions

Collagenase NB 8 Broad Range is provided as a lyophilized powder and should be stored in a dry environment at +2 to +8 °C.

Stock solutions can be 0.2 µm filtered and stored at -20 °C for 1 year without loss of activity.

#### Ordering Information

Enzyme	Cat. No.	Pack size
Collagenase NB 8 Broad Range	S1745601	250 mg
Collagenase NB 8 Broad Range	S1745602	1 g

### Isolation of Human Cardiomyocytes from Cardiac Muscle Tissue

#### Recommended Starting Conditions

Concentration of Collagenase NB 8 Broad Range	0.8 – 1.0 PZ U/ml*
Isolation Conditions	2 – 3.5 h, 37 °C

\*PZ units acc. to Wunsch

In general the required collagenase concentration depends on tissue type and origin as well as isolation procedure. Therefore Collagenase NB concentrations stated above should be considered as starting points and progress of the digestion process should be monitored visually in order to determine the optimal conditions.

The digestion process can be stopped by adding EDTA, cooling down or diluting the digestion solution.

It is recommended to measure the concentration of the collagenase solution in PZ U/ml and not in mg/ml.

This ensures optimal reproducibility of isolations with collagenases from different batches, although Nordmark guarantees a high lot-to-lot consistency.

#### Collagenase NB products

- > **High cell yields and viability**
- > **Reliable lot-to-lot consistency**
- > **GMP grades available**

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