



We measure activity in your transglutaminase samples!

Background: Transglutaminase (Microbial transglutaminase, MTG) is a processing aid widely used to improve meat, fish, bakery, and dairy products.

Transglutaminase crosslinking can modulate the physical and textural properties of various protein-containing foods

Transglutaminase Activity:

At Zedira we determine the activity of your transglutaminase sample on a fee for service base.

How to get your sample measured at Zedira?

1. Sample shipment

Send us **at least 50 g** of your sample using a carrier of your choice.

Ship it to: **Zedira GmbH, Roesslerstrasse 83, 64293 Darmstadt, Germany.**

Please inform us via e-mail about your shipment (contact@zedira.com) and provide expected activity range.

Samples typically are MTG concentrates (2,000 – 3,000 U/g) or ready to use MTG formulations (60 – 200 U/g).

2. Sample measurement

Transglutaminase activity of your samples is measured using the **standard hydroxamate assay** (see assay principle below).

Two independent measurements, in triplicates each, are performed per sample.

Our internal quality standards require maximal inter-assay and intra-assay deviations of 5%.

3. Results

Transglutaminase activity of each sample is stated in a Certificate of Analysis.

Certificate of analysis is sent to you via e-mail within **1-2 working days** after receipt of your sample

4. Fee for service

The **assay fee** per sample is **250 €**.

When sending **3 samples at the same time**, fee per analysis is reduced to **225 €**.

The invoice is sent by e-mail and can be paid by bank transfer or credit card.



Please contact us for further questions.



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The transglutaminase activity assay principle:

The Standard Hydroxamate Assay uses Z-Gln-Gly-OH as peptidic glutamine substrate and hydroxylamine as amine donor. In the presence of MTG, hydroxylamine is enzymatically incorporated into the peptide to form Z-glutamyl-hydroxamate-glycine. The hydroxamate forms a red colored complex with iron (III) ions, which is quantified at 525 nm.

One unit of microbial transglutaminase activity is defined as the amount of enzyme, which causes the formation of 1.0 µmole of hydroxamate per minute at 37°C (Folk and Cole, 1966).