Product Datasheet

Transglutaminase 2/TGM2 Assay Kit (Colorimetric)
NBP1-37008

Unit Size: 1 Plate

Storage of components varies. See protocol for specific instructions.

Publications: 7

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### Product Information

<table>
<thead>
<tr>
<th><strong>Unit Size</strong></th>
<th>1 Plate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concentration</strong></td>
<td>Concentration is not relevant for this product. Please see the protocols for proper use of this product.</td>
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<tr>
<td><strong>Storage</strong></td>
<td>Storage of components varies. See protocol for specific instructions.</td>
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<tr>
<td><strong>Conjugate</strong></td>
<td>HRP</td>
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<tr>
<td><strong>Buffer</strong></td>
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### Product Description

**Description**
The Transglutaminase 2/TGM2 Assay Kit uses biotinylated T26 peptide (Biotin-pepT26) as the first substrate (amine-acceptor/acyl-donor) and an amine-donor/acyl-acceptor as a second substrate. Samples suspected of containing TG2 are incubated with calcium, dithiothreitol (DTT) and Biotin-pepT26 in the wells of microtiter plates containing the amine substrate. In the presence of TG2, the gamma carboxamide of the glutaminyl residue of the biotin-pepT26 is incorporated into the amine substrate to form biotinylated isopetide bound. The system is coupled to Streptavidin labelled peroxidase (SAv-HRP). SAv-HRP is revealed using H2O2 as HRP substrate and tetramethyl benzidine as electron acceptor (chromogen).

**Gene ID**
7052

**Gene Symbol**
TGM2

**Species**
All Species

**Reactivity Notes**
Use in Porcine reported in scientific publication PMID: 32431691

**Specificity/Sensitivity**
Measurement of tissue Transglutaminase (tTG/TG2) with low or no interference with other TGs isoforms.

**Kit Components**
- Microtiter strips coated with amine substrate (12x8 strip microtiter wells), DTT (0.2 ml), EDTA (Negative Control) (1 ml), Reaction Buffer (Biotin-pepT26/CaCl2) (lyophilized), Enzyme Tracer (SAv-HRP) (50 ul), Wash Buffer 10X (30 ml), Diluent Buffer 10X (10 ml), HRP Substrate (12 ml), Blocking Reagent (12 ml), Opr0036: Recombinant human TG2 (positive control) (lyophilized)

**Notes**
The kit is shipped on ice. Upon arrival, the DTT (R1), the Reaction Buffer (R3) and Enzyme Tracer (R4) should be stored at -20C. All the other components of the kit should be kept at 4C. When stored properly, these stock solutions are stable for at least 24 months. OTHER SUPPLIES REQUIRED: - Recombinant human TG2 - TG2 inhibitor. This is recommended as negative control for screening of TG2 inhibitors.

### Product Application Details

**Applications**
- Functional

**Recommended Dilutions**
- Functional
Publications

Thomas K, Zondler L, Ludwig N et al. Glutamine prevents acute kidney injury by modulating oxidative stress and apoptosis in tubular epithelial cells JCI insight 2022-11-08 [PMID: 36107633] (Func, All)

Han MS, Jung YK, Kim GW, Han S Transglutaminase-2 regulates Wnt and FoxO3a signaling to determine the severity of osteoarthritis Sci Rep 2020-08-06 [PMID: 32764573]


Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Kits are guaranteed for 6 months from date of receipt.

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