# Product Data Sheet

Product number **T018**
Revision number RN4.0

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| **Product Name** | Inactive human tissue transglutaminase<br>(hTG2, Cys277Ser-mutant, recombinantly produced in E. coli) |
| **Synonym** | Tissue-type Transglutaminase, TG2, TGase 2, proteinglutamine-γ-glutamyltransferase |
| **Source** | Recombinantly produced in *E. coli* |
| **Quantity** | 250 µg / 1 mg |
| **Molecular Weight** | 78 kDa |
| **Activity** | Due to the Cys277Ser-mutation the protein has no transglutaminase activity |
| **Description** | $His_6$-rhTG2-Cys277Ser is based on the TGM2-allele from I.M.A.G.E.-clone IMAGp958L121020 isolated from neuroblastoma cells of the human brain (Val224-allele, Kanchan et al., Biochem. J. 2013, 455:261–72).<br><br>It is N-terminally fused to a hexahistidine-tag resulting in the encoded N-terminal amino acid sequence MAHHHHHHAEELV. At position 277 Cysteine has been replaced by Serin. Please note that numerotation corresponds to the wild type protein without hexahistidine-tag.<br>$His_6$-rhTG2 is produced in *E. coli* and purified by ion metal chelating chromatography to more than 95% purity. |
| **Application** | $His_6$-rhTG2-Cys277Ser may be used for immunoprecipitation. |
| **Appearance** | White lyophilized solid. |
| **Reagents** | The Transglutaminase is lyophilized from 10 mM sodium phosphate buffer, 150 mM NaCl, pH 8. |
| **Reconstitution** | Add the volume of water specified in the certificate of analysis under aliquotation to the vial of lyophilized powder. Rotate vial gently until solid dissolves. After reconstitution the solution should be stored frozen in working aliquots. For short term storage keep cooled on ice. |
| **Storage** | Store at –20 °C in working aliquots.<br>Repeated freezing and thawing is not recommended.<br><br>***Delivery at ambient temperature is possible*** |
| **Reference(s)** | Shinde et al., J. Mol. Cell Cardiol. 2018, 117:36-48<br>Van den Akker et al., PLoS ONE 2011, 6:e23067 |
| **Related products** | T002 Human tissue transglutaminase<br>T051 Open tTG™<br>A033 Monoclonal antibody to human TG2 (Catalytic Domain) |
| **Release date** | 23 November 2022 |
| **NOTE** | INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS. |