

Product number **C102**  
Revision number **RN2.0**

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<b>Product Name</b>	MTG Blocker
<b>Application</b>	Blocking of enzymatic activity of microbial (bacterial) transglutaminase IC <sub>50</sub> ~ 125 µM (Microbial Transglutaminase Assay Z009; Zedira, Germany)
<b>Mode of action</b>	Irreversible alkylation of the active site cysteine. C102 has a molecular weight of about 510 Da and consists of an electrophilic warhead and a peptidic backbone. First, the MTGs active site cysteinyl residue attacks the warhead. A subsequent reaction leads to the release of a leaving group. Finally, the peptidic backbone is irreversibly attached to the MTG active site. As a consequence, the mass of the enzyme increases +482 Da due to the attached peptidic backbone.
<b>Molecular Formula</b>	Not disclosed (Disclosure may be possible under a CDA)
<b>Molecular Weight</b>	~ 510
<b>Purity by HPLC</b>	>90 % (214 nm)
<b>Solubility</b>	2.5 mM in 0.5% (v/v) DMSO / aqueous buffers  Pre-dissolve e.g. 10 mg (19.6 µmol) in 39.2 µl DMSO - dilute e.g. 10 µl of that stock solution (500 mM) with 1990 µl aqueous buffer to obtain a 2.5 mM solution.  DMSO stock solutions are sterile and can be stored at -20°C for at least 6 months. To avoid too many freeze-thaw cycles, we strongly recommend storage of aliquots. Aqueous solutions are stable at room temperature for at least 3 days.
<b>Appearance</b>	Off-white solid
<b>Storage</b>	Store at -20°C, desiccate
<b>Related products</b>	T001 Bacterial transglutaminase Z009 Microbial Transglutaminase Assay Kit T036 Transglutaminase Assay Kit  Further please refer to: "Background information Transglutaminase labelling" as well as "The biotechnological glue! Microbial Transglutaminase" (Zedira catalogue and homepage)
<b>Reference(s)</b>	Rickert, M. <i>et al. Protein Sci.</i> <b>2016</b> , <i>25</i> , 442-455. Spycher, P.R. <i>et al. ChemBioChem</i> <b>2017</b> , <i>18</i> , 1923-7.
<b>Release date</b>	02 December 2021
<b>NOTE</b>	INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.