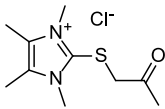


Product Number **T101**  
Revision Number **RN3.0**

<b>Product Name</b>	1,3,4,5-Tetramethyl-2-[(2-oxopropyl)thio]imidazolium chloride
<b>Synonym</b>	L-682.777, SU732
<b>Application</b>	Inhibitor for transglutaminase
<b>Efficacy</b>	The molecule was developed to block coagulation factor XIIIa, however the compound inhibits tissue transglutaminase as well. Both enzymes are inhibited with an IC <sub>50</sub> of about 0.25 µM.
<b>Molecular Formula</b>	C <sub>10</sub> H <sub>17</sub> ClN <sub>2</sub> OS (free cation: C <sub>10</sub> H <sub>17</sub> N <sub>2</sub> OS <sup>+</sup> )
<b>Molecular Weight</b>	248.77 (free cation: 213.32)
<b>Chemical Structure</b>	
<b>Purity by HPLC</b>	>95 % (214 nm)
<b>Solubility</b>	50 mM in aqueous buffers Dissolve e.g. 5.0 mg in 402 µl PBS buffer to obtain a 50 mM solution <b>or:</b> 50 µM in 0.1% (v/v) DMSO / aqueous buffers. Pre-dissolve e.g. 10.0 mg in 804 µl DMSO (50 mM). Take e.g. 10 µl of the 50 mM stock solution - dilute by adding 9990 µl buffer or assay components to obtain your final assay solution (50 µM). 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.
<b>Appearance</b>	Off white solid
<b>Storage</b>	Store at -20°C, desiccate
<b>Related Products</b>	A101 Abz-NE(CAD-DNP)EQVSPLTLLK-OH A102 Abz-APE(CAD-DNP)QEA-OH T006 Guinea pig liver transglutaminase T002 Human tissue transglutaminase (hTG2, recombinant in <i>E. coli</i> ) T007 Coagulation factor XIII purified from human plasma (pFXIII, A <sub>2</sub> B <sub>2</sub> ) T027 Human blood coagulation Factor XIII, recombinant
<b>Reference(s)</b>	Freund, K.F. <i>et al. Biochemistry</i> <b>1994</b> , 33, 10109. Lorand, L. <i>et al. Exp. Eye Res.</i> <b>1998</b> , 66, 531. Dale, G.L. <i>et al. Nature</i> <b>2002</b> , 415, 175. Dodt, J. <i>et al. Anal. Biochem.</i> <b>2013</b> , 439, 145. v.d. Akker J. <i>et al. PLoS One</i> <b>2011</b> , 6, e23067. Matlung, H.L. <i>et al. Atherosclerosis</i> <b>2010</b> , 213, 77. Barsigan C. <i>et al., J. Biol. Chem.</i> <b>1991</b> , 266, 22501. Katt, P.W. <i>et al. Mol. Pharmaceutics</i> <b>2015</b> , 12, 46-55. Aleman, M.M. <i>et al. J. Clin. Invest.</i> <b>2014</b> , 124, 3590. Aleman, M.M. <i>et al. PLoS ONE</i> <b>2015</b> , 10, e0124448.

# Product Data Sheet



Product Number **T101**  
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Kattula, S. *et al. Blood Adv.* **2018**, 2, 25-35.  
Macrae, F.L. *et al. Clin Invest.* **2018**, 128, 3356-3368.

**Release date** 29 December 2021

**NOTE** INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN,  
THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.