Product Data Sheet

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Product number	**P010**
Revision number	RN4.0

Product Name	(PEG1,088)amine, monodisperse
Synonym	mPEG24-NH$_2$
Quantity	10 mg
Application	PEGylated amine donor substrate for transglutaminases
Molecular Formula	C$_{49}$H$_{101}$NO$_{24}$
Molecular Weight	1088.32
Chemical Structure	
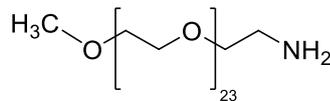
Purity by HPLC	>90 %
Solubility	50 mg/ml in 0.01 % (v/v) HCl
Reconstitution	e.g. for the example application given below, 4.35 mg (PEG1,088)amine were dissolved in 1 mL buffer (20 mM NaOAc, pH6) to obtain a 4 mM stock solution
Appearance	White powder
Storage	Store at -20°C, desiccate

Application	Protein labeling

A 28 kDa-protein (component CQ from Substrate Finder Kit L001) is labeled with (PEG1,088)amine using MTG (microbial transglutaminase) according to a modified protocol of the Substrate Finder Kit (L001). The result shown in Figure 1 reveals the increase in molecular weight of the protein (black arrow) up to the covalent incorporation of (PEG1,088)amine (red arrow).
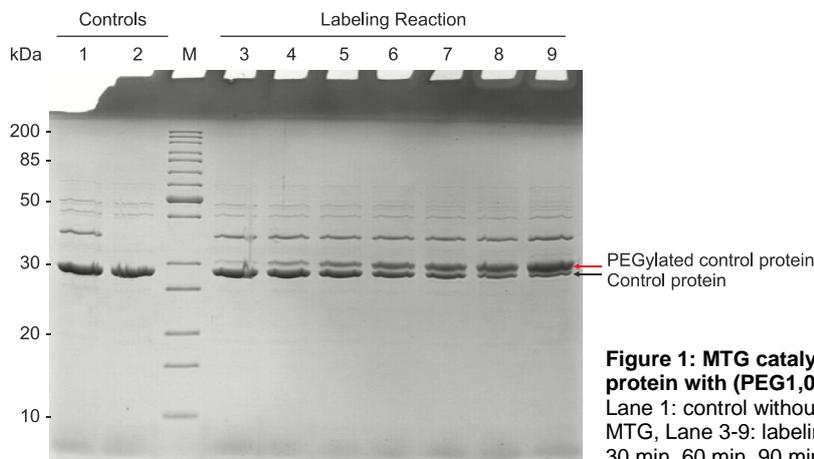

Figure 1: MTG catalyzed labeling of Q-taged control protein with (PEG1,088)amine.
Lane 1: control without PEG, Lane 2: control without MTG, Lane 3-9: labeling reaction after 5 min, 15 min, 30 min, 60 min, 90 min, 120 min, 180 min respectively.

Please see also MTG catalyzed PEGylation using (PEG5,000)amine (P011), Z-Gln-Gly-(PEG1,088) (C092) or Z-Gln-Gly-(PEG5,000) (C093) as substrate in the corresponding product data sheets.

Product Data Sheet

Related products	T001	Bacterial transglutaminase highly purified
	P011	(PEG5,000)amine, polydisperse
	C092	Z-Gln-Gly-(PEG1,088), monodisperse
	C093	Z-Gln-Gly-(PEG5,000), polydisperse
	L001	Substrate Finder Kit
	L102	PEG1,088 TGase Protein Q-Labeling Kit
Reference(s)		Case, A. *et al. Biochemistry* **2007**, *46*, 1106.
		Mero, A. *et al. J. Controlled Release* **2011**, *154*, 27.
Release date		22 December 2021
NOTE		INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.