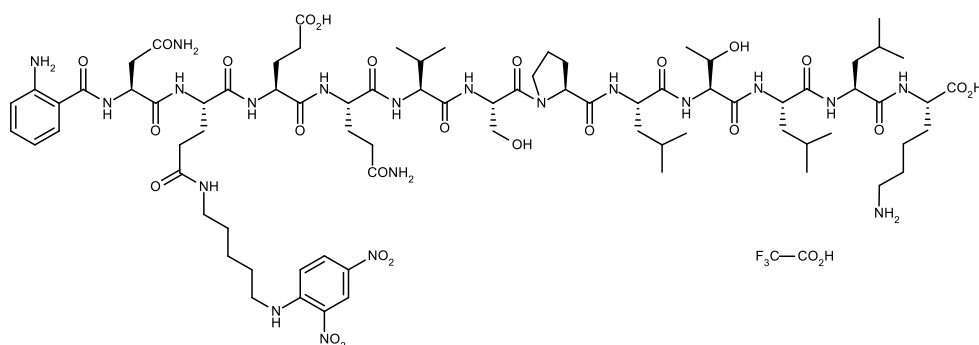


Product Data Sheet



Product number **A101**
Revision number **RN7.0**

Product Name	FXIII-Assay Substance, fluorescent Abz-NE(CAD-DNP)EQVSPLTLK-OH trifluoroacetate
Application	Kinetic measurement of transglutaminases (FXIII, TG1, TG2, TG3, and TG6)
Molecular Formula	C ₇₈ H ₁₂₂ N ₂₀ O ₂₅ (free base)
Molecular Weight	1739.92 (free base)* *The individual molecular weight of a batch depends on the number of TFA counter ions per A101 peptide molecule
TFA content	Report result
Chemical Structure	



Purity by HPLC	>95 % (214 nm)
Solubility	50 µM in 0.1% (v/v) DMSO / aqueous buffers (calculated with M.W. 1853.95). Pre-dissolve e.g. 10 mg (5.39 µmol) in 108 µl DMSO - dilute e.g. 10 µl of that stock solution (50 mM) with 9990 µl aqueous buffer to obtain a 50 µM 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.
Appearance	Yellow solid
Storage	Store at -20°C, desiccate
Related products	F004 Fibrinogen human plasma T027 Human blood coagulation Factor XIII, recombinant G101 Gly-Pro-Arg-Pro-amide T056 Human alpha thrombin
Release date	12 September 2025
NOTE	The quantification of the TFA counter ion content is performed by using a ¹⁹ F NMR method according to Little <i>et al.</i> (<i>J. Pharm. Biomed. Anal.</i> 2007 , 43, 1324), based on an internal standard. INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.

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Assay

12 µL recombinant human FXIII-A (125 µg/mL, T027, Zedira) is preincubated with 3 µL human α-thrombin (0.5 U/mL, T056, Zedira).
 Assay buffer (285 µL; 50 mM Tris-HCl, 10 mM CaCl₂, 150 mM NaCl, 5.56 mM glycine methyl ester, 5 mM DTT, pH 7.5) containing 50 µM A101 substrate is added and the kinetic measurement is started subsequently.
 Fluorescence emission is monitored at 460 nm (λ_{ex} = 360 nm) and 37°C for 30 min using e.g. a CLARIOstar fluorescence micro plate reader (BMG Labtech, Ortenberg, Germany).
 When measuring plasma or other fibrin(ogen) containing samples, 1.2 mg/mL tetrapeptide (Gly-Pro-Arg-Pro-amide to avoid clotting, G101, Zedira) and Polybrene are added.

Kinetic parameters Determined by using 50 µM A101 substrate each

	FXIII	TG1	TG2	TG3	TG6	TG7
K_m [µM]	10.5	77.0	8.6	13.4	55.9	10.6
k_{cat} [s ⁻¹]	0.137	0.006	0.002	0.035	0.006	0.003