

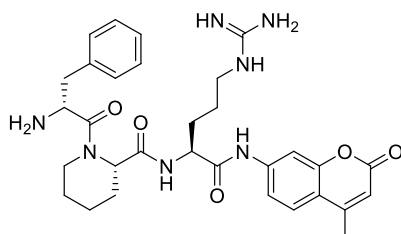
Product Data Sheet



Product number D017
Revision number RN2.0

Product Name Thrombin-Assay Substance, fluorescent
Synonym (D)-Phe-Pip-Arg-AMC
Application Highly sensitive fluorogenic thrombin substrate
Lower limit of detection: 5 pM (picomolar) thrombin
Molecular Formula C₃₁H₃₉N₇O₅
Molecular Weight 589.69
Spectral properties λ_{ex} = 330-360 nm, λ_{em} = 430-460 nm
Kinetic Parameters K_m = 4.35 μM; v_{max} = 0.22 μM/min (0.06 nM thrombin)

Chemical Structure



Purity by HPLC >95 % (214 nm)

Solubility 50 μM in 0.1% (v/v) DMSO / aqueous buffers
Pre-dissolve e.g. 10 mg (17.0 μmol) in 339 μl DMSO - dilute e.g. 10 μl of that stock solution (50 mM) with 9,990 μl aqueous buffer to obtain a 50 μM solution.
DMSO stock solutions 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 Pale yellow solid

Storage Store at -20°C, desiccate

Related products T056 Human alpha thrombin, highly active
T222 Human alpha thrombin, recombinant
Z020 Thrombin-Generation-Assay Substance, "slow" fluorogenic thrombin substrate

Reference(s) Larsen M.L. *et al. Thromb. Res.* **1978**, 13, 285-288.
Goodnight S.H. Jr. *et al. Am. J. Clin. Pathol.* **1980**, 73, 639-647.
Rijkers D.T. *et al. Thromb. Res.* **1995**, 79, 491-499.
Gram, J. and Jespersen, J. *Clinical Chemistry* **1995**, 31, 1683-1688.

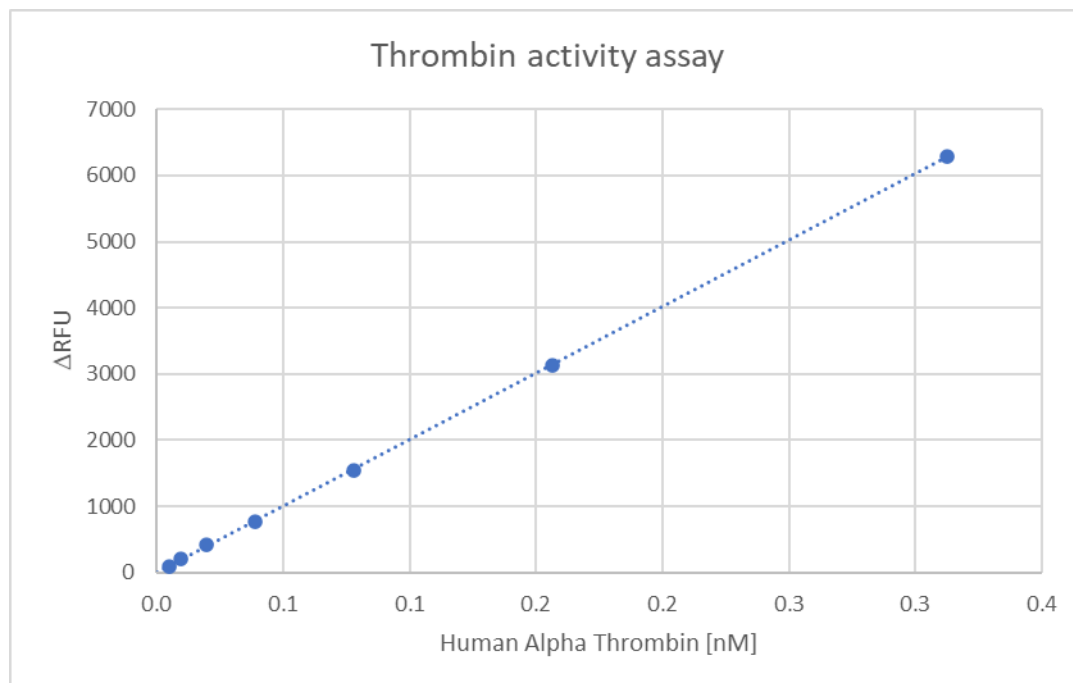
Release date 14 December 2021

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Thrombin activity assay: Plot of the increase in emission against the respective thrombin concentrations. The resulting lower limit of detection was determined to 5 pM (picomolar).