

Pefachrome[®]TH (Pefa-5114)

Application: Chromogenic peptide substrate for the determination of thrombin and antithrombin III

Formula: H-D-CHG-Ala-Arg-pNA·2AcOH

Principle: H-D-CHG-Ala-Arg-pNA + E ==> H-D-CHG-Ala-Arg-OH + pNA + E
E = Enzyme

K_M: 15.9 μM

V_{max}: 4.78 μM/min

Solubility: Up to 4 mM in dist. water

MW: 624.7

Storage: May be used by the expiry date given on the label when stored unopened, protected from moisture, in the dark, 2-8°C. Avoid contamination of the reagents by micro-organisms. Shipment of product does not require cooling during the time of transportation.

Material required but not provided:

Buffer, α-thrombin (3 NIH units/ml in 300 mM NaCl)

Buffer: 50 mM Tris-Imidazole pH 8.4, 300 mM NaCl

Assay 1: Suggested protocol for the determination of **thrombin** activity:

0.730 ml buffer
0.070 ml α-thrombin
0.200 ml Pefachrome[®]TH, 4 mM in dist.H₂O
=> Determination of ΔOD/min at 405 nm

Assay 2: Suggested protocol for the determination of **antithrombin III** in citrated plasma:

Inactivation of thrombin by plasma AT III
1.000 ml 4 NIH unit/ml thrombin and 10 USP unit/ml heparin / ml buffer
0.010 ml human citrated plasma
=> incubate for 4 min at 37 °C

Assay of residual thrombin activity
1.700 ml buffer
0.100 ml solution step 1
0.200 ml Pefachrome[®]TH, 2 mM in dist.H₂O
=> Determination of ΔOD/2 min at 405 nm

Package size: Vial containing 10 μmol
Bulk [g]

Code: 081-20
081-03

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