

# Pefachrome<sup>®</sup>TH

**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<sub>M</sub>:** 15.9 μM

**V<sub>max</sub>:** 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:

0.830 ml buffer  
0.070 ml α-thrombin  
0.100 ml Pefachrome<sup>®</sup>TH, 4 mM in dist.H<sub>2</sub>O  
=> 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<sup>®</sup>TH, 2 mM in dist.H<sub>2</sub>O  
=> 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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