

# Pefachrome<sup>®</sup> FVIIa (Pefa-5979)

**Application:** Highly sensitive chromogenic peptide substrate for factor VIIa. Determination of factor VIIa activity for research, in-process and quality control of factor VIIa preparations.

**Formula:** CH<sub>3</sub>SO<sub>2</sub>-D-CHA-But-Arg-pNA·AcOH

**Principle:** CH<sub>3</sub>SO<sub>2</sub>-D-CHA-But-Arg-pNA + E ==> CH<sub>3</sub>SO<sub>2</sub>-D-CHA-But-Arg-OH + pNA + E  
E = Enzyme (factor VIIa)

**Solubility:** Up to 4 mM in dist. H<sub>2</sub>O

**MW:** 670.8

**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.

**Note:** The sensitivity of this substrate for factor VIIa is significantly increased in the presence of tissue factor (TF).

**Kinetic data:**

	<b>K<sub>M</sub></b>	<b>v<sub>max</sub></b>
without TF	5.0 mM	6.72 nmol/min
with TF Ratio VIIa / TF: ≈ 1/10	0.97 mM	69.7 nmol/min

**Material required but not provided:**

Tissue factor (TF), buffer, dist. water

**Tissue factor:** 0.31 mg/ml

**Buffer:** 0.1 M Tris, 100 mM NaCl, 5 mM CaCl<sub>2</sub>, 0.1% BSA, pH 8.4

**Assay:** Suggested protocol for the determination of factor VIIa activity:

0.020 ml factor VIIa (0.025 mg/ml)  
0.020 ml TF  
=> 2 min at 37 °C  
1.760 ml buffer  
0.200 ml Pefachrome<sup>®</sup>FVIIa (4 mM in dist. water)  
=> Determination of ΔOD/min at 405 nm

**Package size:** Vial containing 10 μmol  
Bulk [g]

**Code:** 093-20  
093-01

FOR RESEARCH USE ONLY. NOT FOR HUMAN USE OR DRUG USE.