

Pefachrome® 6017 (article number 081-45)
Pefachrome® FXII/TH 5253 (article number 081-11)

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

Formula: H-D-CHA-Gly-Arg-pNA-2AcOH **MW:** 624.7

Principle: H-D-CHA-Gly-Arg-pNA + FXIIa ==> H-D-CHA-Gly-Arg-OH + pNA + FXIIa

K_M: 0.8 mM **V_{max}:** 3.14 µmol/min

Solubility: Up to 4 mM in H₂O

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, NaCl, reference material, dist. H₂O, Pefabloc® PK, Kalliplastin®

Buffer: 50 mM Tris-imidazole buffer pH 7.9, 150 mM NaCl

Assay 1: Suggested protocol for the determination of factor XIIa activity:

1.700 ml 50 mM	0.700 ml buffer 0.100 ml factor XIIa (0.2 units/ml) 0.200 ml Pefachrome®6017 4 mM ==> Determination of ΔOD/min at 405 nm
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Assay 2: Suggested protocol for the determination of factor XIIa activity (FXII activated by Kalliplastin®) using Pefachrome®6017 and a selective synthetic inhibitor of plasma kallikrein (Pefabloc® PK):

0.100 ml citrated plasma (diluted 1:5 with NaCl) 0.200 ml Kalliplastin® (20 µg/ml, Pentapharm Ltd.) ⇒ incubate for 1 min at 37 °C 0.500 ml buffer 0.100 ml Pefabloc® PK 0.2 mM 0.100 ml Pefachrome®6017 2 mM ==> Determination of ΔOD/min at 405 nm

Reference: Stürzebecher J, Svendsen L, Eichenberger R, Markwardt F.
A new assay for the determination of factor XII in plasma using a chromogenic substrate and a selective inhibitor of plasma kallikrein.
Thromb Res 1989; 55: 709-15.

Package size: Vial containing 10 µmol **Code:** 081-45
Bulk [g] 081-11

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