

CHA-XaChrom

Catalog No: 100-04

Application: Highly sensitive chromogenic substrate for factor Xa.

Sequence: CH3OCO-D-CHA-Gly-Arg-pNA-AcOH

Structure	MW	Kcat	Km
HN NH2	622.7 g/mol	140 s ⁻¹	0.106 mM

Note: K_m and K_{cat} is reported using the following buffer: 50 mM Tris, 2.5 mM CaCl₂, pH 8.4, 37°C

Aliquot size: 5mg CHA-XaChrom and 20mg mannitol. Soluble in distilled water.

Storage: 2-8°C

Substrate may be used until expiration date on label when stored unopened

(protected from light and moisture).

Once reconstituted substrate expires within 6 months. Must avoid contamination

by micro-organisms.

Reconstitution:

Desired concentration	Volume of H ₂ O to add
(mM)	(mL)
2	4.015
3	2.677
4	2.007

Sample protocol for determination of Factor Xa:

Materials needed but not provided:

50 mM Tris, 130 mM NaCl, 0.5% BSA, pH 8.3

FXa: Dilute to 0.001 mg/mL with the above buffer. Unknown FXa containing samples might need to be diluted until in measuring range.

Reconstitute the substrate to 2 mM with H₂O.

Protocol:

Working Substrate Solution:

Add 1.1 mL of 2 mM substrate to 8.9 mL buffer.

Reaction:

950 µL of Working Substrate Solution

50 µL of FXa sample

Determination of Δ OD/min at 405 nm for 2 min at 37°C.

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