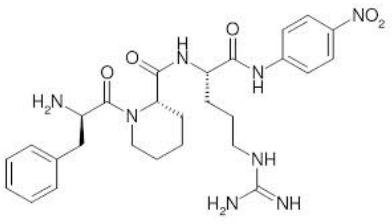


## ThrombinChrom

**Catalog No: 100-02**

**Application:** Highly sensitive chromogenic substrate for thrombin.

**Sequence:** H-D-Phe-Pip-Arg-pNA · 2HCl

Structure	MW	*K <sub>cat</sub>	*K <sub>m</sub>
	625.6 g/mol	100 - 200 s <sup>-1</sup>	10 μM

\* General Reference: *Handbook of Synthetic Substrates for the coagulation and fibrinolytic system*, by H.C. Hemker, 1983, Martinus Nijhoff Publishers. K<sub>m</sub> and K<sub>cat</sub> is reported using the following buffer: 50 mM Tris, 0.15 M NaCl, pH 8.3, 37°C.

**Aliquot size:** 5mg ThrombinChrom and 20 mg 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 (mM)	Volume of H <sub>2</sub> O to add (mL)
2	3.996
3	2.664
4	1.998

**Sample protocol for determination of Thrombin:**

Materials needed but not provided:

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

Thrombin: Dilute human thrombin to 0.8 ug/mL in assay buffer. Unknown thrombin containing samples might need to be diluted until in measuring range.

Reconstitute the substrate to 2 mM

Protocol:

Working Substrate Solution: Add 0.150 mL of 2 mM substrate into 9.850 mL of assay buffer, place at 37°C
Add 950 μL of Working Substrate Solution and 50 μL of diluted thrombin sample to a cuvette.
Measure ΔOD/min at 405 nm for 2 min at 37°C.

**RESEARCH USE ONLY**

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