

— THROMBIN CHROMOGENIC SUBSTRATE · BIOPHEN CS · HYPHEN BIOMED

Measure thrombin (Factor IIa) — *cleanly,* *at 405 nm.*

A highly purified synthetic peptide substrate for **thrombin (Factor IIa)**. On cleavage it releases **para-nitroaniline (pNA)**, read at 405 nm in direct proportion to enzyme activity. Built on the established **Chromogenix S-2238** chemistry and backed by HYPHEN BioMed's own head-to-head equivalence studies — supplied lyophilized, single vial to bulk. Part of the **BIOPHEN™ CS series**, distributed by Aniara in North America and the Nordic & Baltic states.

CHROMOGENIC SUBSTRATE · HYPHEN BIOMED

Thrombin Substrate

pNA at 405 nm · S-2238 equivalent

- Releases **para-nitroaniline (pNA)** on cleavage by thrombin (Factor IIa) — absorbance at 405 nm is proportional to activity.
- Peptide sequence **H-D-Phe-Pip-Arg-pNA** — the S-2238 substrate, no protocol redesign.
- **BIOPHEN CS-01(38) (A229001)** — single-vial (1x25 mg) to bulk (12x25 mg).
- **Documented equivalence** to the legacy Chromogenix substrate — head-to-head data on file.

S-2238 equivalent · RUO

25 mg

DOCUMENTED EQUIVALENCE

HYPHEN BioMed has run **head-to-head characterization studies** of the CS series against the matching Chromogenix substrates — not just an equivalence claim.

Identical peptide chemistry and **pNA-at-405 nm** readout — drop into existing protocols with no redesign.

A reliable second source for labs and manufacturers built around the legacy Chromogenix S-series.

— ONE SUBSTRATE, THREE BENCHES

Academic research

Thrombin kinetics, inhibitor characterization and coagulation-pathway research — a clean amidolytic readout.

Quality control

Heparin **anti-IIa potency** (USP/EP), antithrombin potency and thrombin-reagent QC.

Pharma research

Direct thrombin-inhibitor development (dabigatran, argatroban, hirudin) and AT-concentrate potency.

Equivalence data, on request

HYPHEN BioMed head-to-head comparison studies versus the matching Chromogenix substrate, plus peptide sequence, MW, K_m , k_{cat} and molarity per vial, are available for assay development and validation. The user establishes and validates assay conditions and protease specificity.

Regulatory & availability: Thrombin Substrate (BIOPHEN™ CS series) is a synthetic, highly purified **research-grade reagent** — for research and pharmaceutical quality-control applications, not for use in diagnostic procedures. The thrombin (anti-IIa) and Factor Xa (anti-Xa) substrates support heparin-potency QC under the European & US Pharmacopoeia. Manufactured by HYPHEN BioMed and distributed by Aniara Diagnostica in **North America and the Nordic & Baltic states**. "Chromogenix" and S-series designations are referenced for cross-identification only and remain the marks of their respective owner. Single-vial and bulk formats; pricing on request. Therapeutic agents named are referenced as analytes / scientific context and are not Aniara products. © 2026 Aniara Diagnostica, Inc.