

SPECTROZYME® FIXa

REF 229

Description

A chromogenic substrate for the amidolytic assay of plasmin and for reactions in which plasmin is generated or consumed.

Formula: H-D-Leu-Ph'Gly-Arg-pNA·2AcOH
Molecular Weight: 660.7
Chemical Name: H-D-leucyl-phenylglycyl-arginine-para-nitroanilide diacetate salt
Composition: Enzymatically digestible substrate colyophilized with glycine
Extinction Coefficient: $\epsilon_{405\text{ nm}} = 9650 \text{ M}^{-1} \cdot \text{cm}^{-1}$
Purity: < 0.5% free para-nitroaniline
Solubility: $\geq 10 \text{ mg/mL}$ in deionized water

Assay Conditions/Substrate Kinetics

Enzyme activity is determined by measuring the increase in absorbance of the free chromophore (pNA) generated per unit time at a wavelength of 405 nm. At excess substrate concentrations, the rate at which the absorbance increases due to the amount of chromophore released is linearly related to enzyme concentration. Measurement can be made either through acid quenching of the reaction (end-point method), or through use of a kinetic recording spectrophotometer (initial-rate-method).

Under the following reaction conditions, the following substrate kinetics were found:

Buffer: 50 mM Tris, 250 mM NaCl, 0.1% PEG 8000, pH 7.8

Temperature: 30°C

Substrate: 1.0 mM REF 229

Enzyme: 100 nM human FIXa (REF 449B)

Kinetics: K_m : 5.32 mM K_{cat} : 2.24 sec⁻¹

Presentation

An amber glass, screw-capped vial containing 10 μmoles (approximately 6.6 mg) of lyophilized substrate.

Reconstitution

Reconstitute with filtered deionized water to create a stock solution with a concentration of 5.0 mM. The typical working range concentration is 0.5 – 1.0 mM.

Storage and Stability

Lyophilized substrate may be stored in the dark at 2° - 8°C up to the expiration date stated on the vial. Protect from moisture by allowing the vial to reach room temperature prior to opening.

Reconstituted substrate may be stored in the dark for 2 months at 2° - 8°C or for up to 6 months at -20°C (Aliquot and freeze. Do not submit to freeze-thaw cycles).

Warnings and Precautions

For Research Use Only.

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| CONT | H-D-leucyl-phenylglycyl-arginine-para-nitroanilide diacetate salt |
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Warning

Hazard Statements:
H315 Causes skin irritation.
H319 Causes serious eye irritation
H335 May cause respiratory irritation









Precautionary Statements:
P261 Avoid breathing dust.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/eye protection
P337 + P313 If eye irritation persists: Get medical advice/attention
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Related Products

REF No. 229, SPECTROZYME® FIXa Chromogenic Substrate.

REF No. 449B, human Factor IXa

Definition of Symbols

| | |
|---|--|
|  | Consult instructions for use |
|  | Manufacturer |
|  | Refer to Safety Data Sheet |
|  | Contains... |
|  | Temperature Limitation: Store at 2°C to 8°C |
|  | Lot Number |
|  | Expiration Date |
|  | Catalog Number |