

CHROM-2444

Chromogenic Substrate for Urokinase, 25 mg

Ref. 5D-30806

For Research Only. Not for Use in Diagnostic Procedures.
For *in vitro* Use Only.



Description: A chromogenic substrate for the amidolytic assay of Urokinase.

Formula: pyro-Glu-Gly-Arg-pNA.HCl ($C_{19}H_{27}ClN_8O_6$)

CAS number: 72194-52-6

Experimental Molecular weight: 498.93 Da (with HCl)

Composition: Enzymatically digestible substrate
 K_m : 0.08 mM (uPA)
 k_{cat} : 25 s^{-1} (uPA)

Purity, via RP-HPLC: $\geq 95\%$

Solubility: >10 mmol/L in water

Presentation:

Ref. 5D-30806 glass vial containing 25 mg (approx. 50 $\mu\text{moles/vial}$) of lyophilized, light-yellow, digestible substrate.

Assay Conditions:

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).

Restore the vial with the required volume of distilled water to get the expected substrate concentration (for example, introduce 20 mL of distilled water into the vial for a stock solution of substrate at the concentration of 1.25 mg/mL). Avoid any contamination during vial reconstitution and pipetting.

Application

Chromogenic substrate selective for urokinase (uPA). The substrate is also hydrolyzed by tissue plasminogen activator (tPA).

Suitable for laboratory applications requiring the chromogenic determination of urokinase activity.

In the presence of urokinase, CHROM-2444 is hydrolyzed in 50 mM Tris buffer containing 38 mM NaCl at pH 8.8, releasing p-nitroaniline (pNA). The released pNA is quantified by measuring the absorbance at 405 nm.

Storage and Stability:

Lyophilized substrate may be stored in the dark at $2^{\circ}\text{--}8^{\circ}\text{C}$ up to the expiration date stated on the vial. Protect from moisture by allowing vial to reach room temperature prior to opening.

Reconstituted substrate may be stored for 1 week at room temperature or 3 months at $2^{\circ}\text{--}8^{\circ}\text{C}$. Do not freeze.

Warnings and Precautions:

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.