

5-CHROM 02

Chromogenic Substrate for Kallikrein

Ref. 5D-30801

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

Description:

A chromogenic substrate for the amidolytic assay of kallikrein.

Formula: H-D-Pro-Phe-Arg-pNA•2HCl
(C₂₆H₃₄N₈O₅•2HCl)

Molecular weight: 611.6 (with HCl)

Chemical name: H-D-Prolyl-L-phenylalanyl-L-arginine-p-nitroaniline dihydrochloride

Composition: Enzymatically digestible substrate
colyophilized with mannitol

Extinction coefficient: $\epsilon_{316\text{ nm}} = 1.27 \cdot 10^4 \text{ mol}^{-1} \cdot \text{L} \cdot \text{cm}^{-1}$

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

Free pNA content: $< 0.5\%$

Solubility: $> 25 \text{ mg/mL}$ in water

Suitable stock solution: 4 mmol/L

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.

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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).

Presentation:

Ref. 5D-30801 glass vial containing 25 mg (~46 μmoles) of lyophilized, digestible substrate. Contains 60 mg mannitol as a bulking agent.

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 vial to reach room temperature prior to opening. Reconstituted substrate may be stored for 1 week at room temperature, 2 months at 2°-8°C, or for up to 6 months frozen at -20°C (Aliquot and freeze. Do not submit to freeze-thaw cycles).

Warnings and Precautions:

Content:

H-D-Prolyl-L-phenylalanyl-L-arginine-p-nitroaniline dihydrochloride