

S-2266™

ENGLISH

S-2266™

For Laboratory Use Only

S-2266 is a chromogenic substrate for glandular kallikrein.

COMPOSITION

Each vial contains chromogenic substrate S-2266 25 mg and mannitol 60 mg added as a bulking agent.

CHEMISTRY

<i>Chemical name:</i>	H-D-Valyl-L-leucyl-L-arginine-p-Nitroaniline dihydrochloride
<i>Formula:</i>	H-D-Val-Leu-Arg-pNA · 2HCl
<i>Mol. wt.:</i>	579.6
$\epsilon_{316\text{ nm}}$:	$1.27 \cdot 10^4 \text{ mol}^{-1} \cdot \text{l} \cdot \text{cm}^{-1}$
<i>Solubility:</i>	> 40 mmol/l in H ₂ O
<i>Stability:</i>	Substance: Stable until expiry date if stored at 2-8°C. Avoid exposure to light. The substance is hygroscopic and should be stored dry. Solution: 2 mmol/l in H ₂ O is stable for at least 6 months at 2 to 8°C. Contamination by microorganisms may cause hydrolysis.

Suitable stock solution: 2 mmol/l in H₂O

PRINCIPLE

H-D-Val-Leu-Arg-pNA $\xrightarrow{\text{Enzyme}}$ H-D-Val-Leu-Arg-OH+pNA

The method for the determination of activity is based on the difference in absorbance (optical density) between the pNA formed and the original substrate. The rate of pNA formation, i.e. the increase in absorbance per second at 405 nm, is proportional to the enzymatic activity and is conveniently determined with a photometer.

KINETIC DATA

Porcine pancreas kallikrein: $K_m=2.2 \cdot 10^{-5} \text{ mol/l}$,
 $V=8 \cdot 10^{-9} \text{ mol/min} \cdot \text{KU}$

Human urine kallikrein: $K_m=3 \cdot 10^{-5} \text{ mol/l}$

Human saliva kallikrein: $K_m=5 \cdot 10^{-4} \text{ mol/l}$. Determined at 37°C in 2.5 ml of 0.05 mol/l Tris buffer pH 9.0, I 0.05.

STANDARDIZATION

An activity of $\Delta A/\text{min}=0.05$ (37°C) is obtained by using 0.1 mmol/l of the substrate and 0.6 KU/ml of porcine pancreas kallikrein, KZC (Bayer, Leverkusen, Germany).

APPLICATIONS

The substrate has been used for the determination of:

1. Kallikrein activity in purified preparations (1,2,3).
2. Kallikrein in urine (3,4).
3. Kallikrein in saliva (3,5,6).

DEUTSCH

S-2266™

Nur für Laborzwecke

S-2266 ist ein chromogenes Substrat für glanduläres Kallikrein.

ZUSAMMENSETZUNG

Eine Flasche enthält 25 mg chromogenes Substrat S-2266, und 60 mg Mannitol als Füllstoff.

CHEMIE

Chemischer Name: H-D-Valyl-L-Leuyl-L-arginine-p-Nitroanilin dihydrochlorid

Chem. Formel: H-D-Val-Leu-Arg-pNA · 2HCl

Molekulargewicht: 579,6

$\epsilon_{316\text{ nm}}$: $1,27 \cdot 10^4 \text{ mol}^{-1} \cdot \text{l} \cdot \text{cm}^{-1}$

Löslichkeit: > 40 mmol/l in H₂O

Halbbarkeit: Substanz: Bis zum Verfalldatum haltbar. Die Substanz ist bei 2-8°C bis zum angegebenen Verfalldatum stabil. Sie darf keinen Licht ausgesetzt werden. Sie ist hygroscopisch und sollte trocken und dunkel gelagert werden.

Losung: 2mmol/l in H₂O sind bei 2-8°C mindestens 6 Monate haltbar. Kontamination durch Mikroorganismen kann zur Hydrolyse führen.

Geeignete Ausgangslösung: 2 mmol/l in H₂O

CHROMOGENIX

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REFERENCES

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