

**ENGLISH****S-2251™**For Laboratory Use Only**S-2251™**

S-2251 is a chromogenic substrate for plasmin and streptokinase-activated plasminogen.

COMPOSITION

Each vial contains chromogenic substrate S-2251 25 mg and mannitol 60 mg as a bulking agent.

CHEMISTRY

Chemical name: H-D-Valyl-L-leucyl-L-lysine-p-Nitroaniline dihydrochloride

Formula: H-D-Val-Leu-Lys-pNA · 2HCl

Mol. wt: 551.6

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

Solubility: > 40 mmol/L in H₂O

Stability: 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: 3 mmol/L in H₂O is stable for at least 6 months at 2-8°C. Contamination by microorganisms may cause hydrolysis.

Suitable stock solution: 3-4 mmol/L in H₂O.

PRINCIPLE

H-D-Val-Leu-Lys-pNA $\xrightarrow{\text{Enzyme}}$ H-D-Val-Leu-Lys-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

Plasmin (human): $K_m = 3 \cdot 10^{-4} \text{ mol/L}$,
 $V = 0.5 \cdot 10^{-6} \text{ mol/min} \cdot \text{CU}$

Plasminogen: SK: $K_m = 2 \cdot 10^{-4} \text{ mol/L}$,
 $V = 1 \cdot 10^{-6} \text{ mol/min} \cdot \text{mL plasma}$.
Determined at 37°C in 2.5 mL
0.05 mol/L Tris buffer pH 7.4, I 0.5.

STANDARDIZATION

An activity of $\Delta A/\text{min}=0.05$ (37°C) is obtained by using a substrate concentration of 2 · K_m and:

1. 0.010 CU/mL of human plasmin from Chromogenix AB.
2. 0.0011 U/mL of the plasmin standard from NIBSC, Potters Bar, London.
3. 0.0078 CU/mL of SK-activated human plasminogen from Chromogenix AB.

The substrate is insensitive to kallikrein (glandular and plasma) and urokinase.

APPLICATIONS

The substrate has been used for the determination of:

1. Antiplasmin in plasma (1,2,3,5)
2. Plasminogen in plasma (4,5,6,7)

**DEUTSCH****S-2251™**Nur für Laborzwecke

S-2251 ist ein chromogenes Substrat für Plasmin und Streptokinase-aktiviertes Plasminogen.

ZUSAMMENSETZUNG

Eine Flasche enthält 25 mg chromogenes Substrat S-2251 und 60 mg Mannitol als Füllstoff.

CHEMIE

Chemischer Name: H-D-Valyl-L-leucyl-L-lysine-p-Nitroanilin dihydrochlorid

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

Molekulargewicht: 551,6


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

Löslichkeit: > 40 mmol/l in H₂O

Stabilität: Substanz: Bis zum, Verfalldatum haltbar. Die Substanz ist bei 2-8°C bis zum angegebenen Verfalldatum stabil. Sie darf keinem Licht ausgesetzt werden. Sie ist hygroscopisch und sollte trocken gelagert werden. Das mit Wasser gelöste Substrat ist, in einer Konzentration von 3 mmol/l, mindestens 6 Monate bei 2-8°C haltbar. Eine Kontamination mit Mikroorganismen kann zur Hydrolyse führen.

Geeignete

Ausgangslösung: 3-4 mmol/l in H₂O

CHROMOGENIX

Chromogenix-
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301933R0



REFERENCES

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CHROMOGENIX
