

S-2765™

For Laboratory Use Only

For General Laboratory Use

S-2765™

S-2765 is a chromogenic substrate for determination of Factor Xa. It is also very sensitive to trypsin.

COMPOSITION

Each vial contains the chromogenic substrate S-2765, 25 mg and mannitol 60 mg as a bulking agent.

CHEMISTRY

Chemical name: N- α -Benzyloxycarbonyl-D-arginyl-L-glycyl-L-arginine-p-nitroaniline-dihydrochloride

Formula: N- α -Z-D-Arg-Gly-Arg-pNA · 2HCl

Mol. wt.: 714.6

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

Solubility: > 40 mmol/L in H₂O
> 10 mmol/L in Tris buffer (pH 8.3, I 0.25)

Stability: Lyophilized substance: stable at 2-8°C until expiry date printed on the label. The substance is hygroscopic and should be stored in a dry place.
Solution: 2 mmol/L in H₂O is stable for six months at 2 to 8°C
Contamination by micro-organisms may cause hydrolysis.

Suitable stock solution: 1-2 mmol/L in H₂O.

PRINCIPLE

Enzyme
N- α -Z-D-Arg-Gly-Arg-pNA $\xrightarrow{\text{Enzyme}}$ N- α -Z-D-Arg-Gly-Arg-OH + pNA

The method for the determination of activity is based on the difference in absorbance 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.

CHROMOGENIX

KINETIC DATA

Factor Xa (bovine): $k_m=1 \cdot 10^{-4}$ mol/L, $k_{cat}=290$ sec⁻¹
in Tris buffer pH 8.3, I 0.25 at
37°C.

Factor Xa: (human plasma activated with
Russel's Viper Venom):
 $k_m=3 \cdot 10^{-4}$ mol/L in Tris buffer pH
7.8, I 0.4 at 37°C.

STANDARDIZATION

An activity of $\Delta A/\text{min}=0.05$ (37°C) is obtained by
using a substrate concentration of $2 \cdot k_m$ and a con-
centration of 0.04 nkat/mL of FXa (Chromogenix AB).



CHROMOGENIX

S-2765

Printed Insert Sheet: 301921
Revision: R3
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LANGUAGES

ENGLISH

TECHNICAL SPEC'S

PAPER: White paper,
50-60 g/m² weight.
SIZE: 4.1 x 5.9" (104 x 150 mm.).
PRINT: Front/Back.
PRINT COLOR: All type in black.