

DATA SHEET

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

COMPOSITION

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

CHEMISTRY

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

Molecular weight: 714.6

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: 4 mmol/l in H₂O is stable for more than 6 months at 2-8°C. Contamination by microorganisms may cause hydrolysis.

Suitable stock solution: 4 mmol/l in H₂O.

PRINCIPLE

Enzyme

N- α -Z-D-Arg-Gly-Arg-pNA----->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.

KINETIC DATA

Factor Xa (bovine): $k_m=1.10^{-4}$ 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): $k_m=3.10^{-4}$ mol/L in Tris buffer pH 7.8, I 0.4 at 37°C.

APPLICATIONS

The substrate has been used for the determination of:

1. Factor Xa activity
2. Trypsin

For In-Vitro Diagnostic Use. Not For Human Or Animal Consumption.