

Factor X Activator (RVV-X)

Product No. ADG545B

Description

Specific Factor X activator from Russell's viper venom (RVV-X). RVV-X is a dimer of two peptide chains with a molecular weight of 60 kDa each. Activation of factor X by the activator strictly depends on the presence of calcium ions.

Applications

RVV-X is used in diagnostic procedures to quantitatively convert the zymogen factor X into factor Xa which can be determined by means of a clotting assay or photometrically, using a synthetic chromogenic substrate. RVV-X activator is used in testing of lupus anti-coagulants.

Assays

Chromogenic method

100 µl RVV-X (25 U/ml 25 mM CaCl₂)

10 µl human citrated plasma

=> incubate for 75 sec at 37°C to activate factor X into factor Xa

790 µl 50 mM Tris-HCl, pH 8.4

100 µl SPECTROZYME® FXa substrate (4 mM)

=> Determination of ΔOD/min at 405 nm

Clotting method

100 µl RVV-X (5 mU/ml 20 mM Tris-HCl, pH 7.2, 150 mM NaCl)

25 µl CaCl₂ (25 mM)

25 µl rabbit brain cephaline (0.2 mg/ml)

=> incubate for 1 min at 37 °C

25 µl human citrated plasma

Warnings and Precautions

Contains: Factor X activator from Russell's viper venom serine proteinase.

Hazard pictograms



Signal word

Danger

Hazard statements

H317 May cause an allergic skin reaction.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements

P280 Wear protective gloves.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P501 Dispose of contents/container in accordance with local/regional/ national/international regulations

Presentation

Clear screw-capped vial of 50 U purified Factor X activator from Russell's viper venom lyophilized in 20 mM Tris-HCl, 10 mM NaCl, 0.5% Prionex, pH 7.2.

1 unit (U) is the amount of RVV-X which generates one international unit of enzyme (factor Xa) from zymogen (factor X) ⁽²⁾.

Storage and Stability

May be used by the expiry date given on the label when stored unopened, protected from moisture in the dark at 2°-8°C. Avoid contamination of the reagents by micro-organisms.

Stability after reconstitution:

+37°C	8 hours
+15 to +25°C	2 days
+2 to +8°C	1 week
-80°C	1 month

The reconstituted product can be frozen immediately and stored at -20°C. Avoid refreezing.

References

1. Application of snake venom proteins in the diagnosis of hemostatic disorders. In: Medical Use of Snake Venom Proteins, Stocker K. Stocker K, ed. Boca Raton: CRC-Press 1990; 213-252.
2. Determination of factor X activator in the venom of the saw-scaled viper (*Echis carinatus*), Stocker K, Fischer H, Brogli M. Toxicon 1986; 24: 313-315.
3. The use of dilute Russell's viper venom time for the diagnosis of lupus anticoagulant. Thiagarajan P, Pengo V, Shapiro SS. Blood 1986; 68: 869-874.
4. Coagulant protein of Russell's viper venom. Furie B. Methods Enzymol 1976; 45: 191-205.

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Hinweis/Note:

Der Packungsbeileger dient nur als erste Information. Der relevante Packungsbeileger liegt der Ware bei.

The datasheet is for information purposes only. The current datasheet will be enclosed with product shipment.

For research use only!

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