

Factor V Activator (RVV-V)

Product No. ADG555

Description

Specific factor V activator from Russell's viper venom (RVV-V). RVV-V is a serine proteinase, which converts the single-chain coagulation factor V into a light chain (80 kDa) and a heavy chain (230 kDa) with higher coagulant activity (factor Va). Apart from factor V, no other protein substrate for RVV-V is known. The amino acid sequence is 68% identical to that of batroxobin and 33% to that of the β -chain of human thrombin. The molecular weight is approximately 28 kDa.

Activity

A series of dilutions is prepared from the RVV-V sample. 1.0 ml of normal plasma is incubated with 1 μ l of RVV-V dilution for 3 min at 37 °C. The incubate is diluted 1:100 in HEPES buffer (50 mM HEPES with 1% BSA, pH 7.40) and measured using the following coagulation test:

50 μ l factor V-free plasma
 50 μ l diluted pre-treated plasma (see above)
 100 μ l Thromboplastin-reagent containing calcium
 => determine clotting time at 37 °C

Applications

Activated factor V is not stable and loses its activity within 20 hours at 37 °C. Therefore, RVV-V is used to destabilize and selectively inactivate factor V in plasma and thus to prepare a routine reagent for the factor V determination.

Presentation

One vial contains 700-1000* U of purified Factor V activator from Russell's viper venom lyophilized in 20 mM Tris-HCl, 10 mM NaCl, 0.5% Prionex, pH 7.2. Reconstitute each vial with 1 ml filtered deionized water.

*The lot-specific activity is indicated on the vial label.

1 unit (U) is the activity of RVV-V required for complete activation of the factor V contained in 1 ml of normal plasma.

Distributed by:

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Warnings and Precautions

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

Hazard pictograms



Warning Danger

Signal word

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

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.

Shipment of product does not require cooling during the time of transportation.

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

References

1. Snake venom proteases that activate blood coagulation factor V. Kiesel W and Canfield WM. Methods Enzymol 1981; 80: 275-285.
2. Herstellung Faktor V-freien Plasmas. Conrad BGB. PH. D. Thesis, University of Basel, 1988.
3. The factor V-activating enzyme (RVV-V) from Russell's viper venom. Identification of isoproteins RVV-V alpha, -V beta, and -V gamma and their amino acid sequences. Tokunaga F et al., W. J Biol Chem 1988; 263: 17471-17481.

For research use only!

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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.