Factor X Activator (RVV-X)
Product No. ADG545

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 CaCl$_2$)
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 CaCl$_2$ (25 mM)
25 µl rabbit brain cephaline (0.2 mg/ ml)
=> incubate for 1 min at 37 oC
25 µl human citrated plasma

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
A five (5) vial set, each vial contains 5 U of purified Factor X activator from Russell's viper venom lyophilized in 20 mM Tris-HCl, 10 mM NaCl, 0.5% P्रionex, pH 7.2. Reconstitute each vial with 1 ml filtered deionized water.
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:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Storage Time</th>
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</thead>
<tbody>
<tr>
<td>+37°C</td>
<td>8 hours</td>
</tr>
<tr>
<td>+15 to +25°C</td>
<td>2 days</td>
</tr>
<tr>
<td>+2 to +8°C</td>
<td>1 week</td>
</tr>
<tr>
<td>-80°C</td>
<td>1 month</td>
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</tbody>
</table>

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

References

For research use only!

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