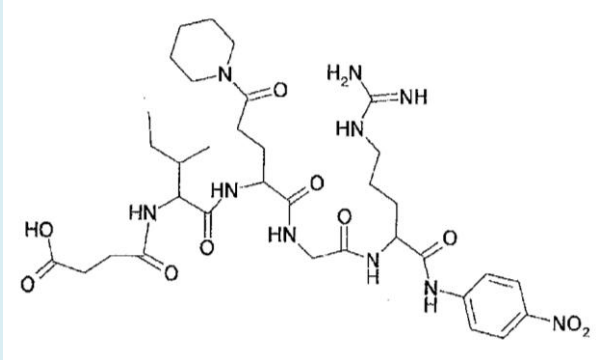
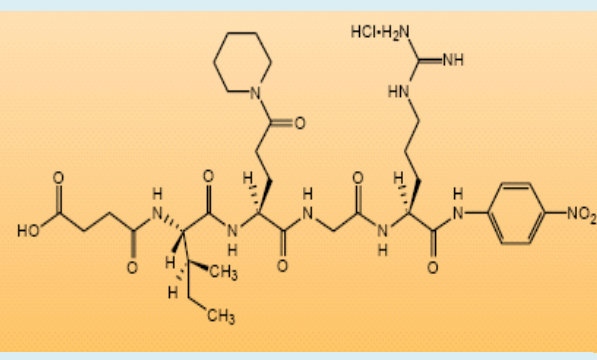


**COMPARISON OF CHARACTERISTICS AND PERFORMANCES OF FX<sub>a</sub>  
CHROMOGENIC SUBSTRATE (HYPHEN BioMed CS-11(32))**

	<b>HYPHEN BioMed</b>	<b>Chromogenix</b>										
Product name	<b>BIOPHEN CS-11(32)</b>	<b>S2732</b>										
Product reference	A229011	-										
Specificity	Recommended substrate for Factor Xa.	Chromogenic substrate for FXa.										
Peptide sequence	Suc-Ile-Glu (gamma-pip)-Gly-Arg-pNA, HCl	Suc-Ile-Glu (gamma-pip)-Gly-Arg-pNA, HCl										
Developed name	Succinyl-L-Isoleucyl-L-Glutamate (gamma-piperidyl)- L-Glycyl-L-Arginine-para-nitroaniline, -hydrochloride	Succinyl-L-Isoleucyl-L-Glutamate (gamma-piperidyl)- L-Glycyl-L-Arginine-para-nitroaniline, -hydrochloride										
Chemical structure	 <p>C<sub>34</sub>H<sub>52</sub>N<sub>10</sub>O<sub>10</sub>, HCl</p>											
Proposed presentation	25 mg (#A229011)	-										
Molarity	~33 μmol / vial	-										
Bulking agents	Mannitol	-										
Purity grade	> 95%	-										
Solubility	≥ 5 mg/mL in H <sub>2</sub> O	-										
Molecular weight	760.9 Da (basic structure)	797.3 Da * (*HCl included)										
Free pNA content	< 0.05%	-										
E316 nm:	NA	-										
Respective reactivities	<table border="1"> <thead> <tr> <th>FXa</th> <th>Thrombin</th> <th>Plasmin</th> <th>Kallicrein</th> <th>aPC</th> </tr> </thead> <tbody> <tr> <td>100</td> <td>1</td> <td>2</td> <td>3</td> <td>0</td> </tr> </tbody> </table> <p>Assay conditions must be duly established for rendering the assay conditions totally specific for Factor Xa, when this substrate is used.</p>	FXa	Thrombin	Plasmin	Kallicrein	aPC	100	1	2	3	0	-
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Stability of the lyophilized product	Until the expiration date printed on the vial. (30 months at 2-8°C from the manufacturing date)	-																
Stability of the reconstituted product	<ul style="list-style-type: none"> <li>- 7 days at room temperature (18-25 °C)</li> <li>- 3 months at 2-8 °C</li> <li>- <b>Do not freeze.</b></li> </ul>	-																
Suitable stock solution	According to the research protocol used, the BIOPHEN CS-11(32) chromogenic substrate can be restored with variable volumes of distilled water ; for example 5 mL can be used for a substrate concentration of 5 mg/mL, or 20 mL for a substrate concentration of 1.25 mg/mL.	-																
Kinetic data	Same characteristics.	-																
Applications	For in vitro use only. All research studies and protocols where a source of chromogenic substrate for Factor Xa is required. Suggested protocol:	-																
	<table border="1" style="width: 100%;"> <tr> <td>Reagent</td> <td>Water bath</td> </tr> <tr> <td>Tris0.05M,NaCl0.30M, pH 8.40 buffer</td> <td>400 <math>\mu</math>L</td> </tr> <tr> <td>Human or Bovine FXa from 2.50<math>\mu</math>g/ml (=C), or serial dilutions, or plasma sample</td> <td>100 <math>\mu</math>L</td> </tr> <tr> <td colspan="2">Mix and incubate for 1 min at 37 °C</td> </tr> <tr> <td>Substrate (reconstituted at 2.5mg/ml in distilled water)</td> <td>100<math>\mu</math>l</td> </tr> <tr> <td colspan="2">Mix and incubate for 3 min at 37 °C</td> </tr> <tr> <td>Citric acid 2%</td> <td>300<math>\mu</math>l</td> </tr> <tr> <td colspan="2">Read A405nm against the sample blank.</td> </tr> </table>		Reagent	Water bath	Tris0.05M,NaCl0.30M, pH 8.40 buffer	400 $\mu$ L	Human or Bovine FXa from 2.50 $\mu$ g/ml (=C), or serial dilutions, or plasma sample	100 $\mu$ L	Mix and incubate for 1 min at 37 °C		Substrate (reconstituted at 2.5mg/ml in distilled water)	100 $\mu$ l	Mix and incubate for 3 min at 37 °C		Citric acid 2%	300 $\mu$ l	Read A405nm against the sample blank.	
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