

MRX APTT



Activated partial thromboplastin time (APTT) is a commonly used screening test for haemostatic defects in the intrinsic and common pathway of the coagulation cascade, as well as the contact activation system. Thus, FV, FVIII, FIX, FX, FXI, FXII, prekallikrein and high-molecular weight kininogen deficiencies can result in a prolonged APTT. Moreover, APTT is also suitable for monitoring heparin treatment and, depending on the design of the reagent, for detection of lupus anticoagulants (LA).

When choosing an APTT reagent it is of great importance that the contact activator is near colloidal using silica or kaolin to ensure a sensitivity to mild deficiencies of FVIII, FIX and FXI. The MRX APTT reagent utilises the near colloidal contact activator silica to activate the contact activation system and to form FXIIa. The contact activation is induced by addition of the APTT reagent to citrated plasma, followed by an incubation at 37 °C. After a specific time period, calcium chloride is added to trigger the plasma coagulation. Finally, a fibrin clot is formed and the clotting time is recorded.

MRX APTT is sensitive to heparin, FVIII, FIX and FXI, while still being insensitive to the potential interferent LA, occasionally causing falsely prolonged APTTs. Thus, MRX APTT is suitable for monitoring heparin treatment and for haemophilia screening, while less suitable to detect LA. MRX APTT reagent contains the contact activator silica and phospholipids to ensure a highly consistent and stable product. Since there is no international standard for APTT to correlate against, each APTT on the market has its own composition of phospholipids and activator, giving reagents different characteristics.

- » Liquid components, ready to use
- » Near colloidal silicate contact activator
- » Insensitive to LA
- » Highly sensitive to UFH
- » Excellent factor sensitivity

DETAILS & TYPICAL DATA

Product form:	Liquid components
Origin:	Colloidal silicate with phospholipids
Additional products needed:	<ul style="list-style-type: none"> • CaCl₂ (included in MRX930 and MRX931 kits) • Eximius Control Basic or Plus (L1/L2/L3) (MRX170-MRX173, MRX180-MRX183) • No calibration required
Expected values, normal donors:	27-35 sec
No interference with:	Hemoglobin >10mg/mL, bilirubin >0,05 mg/mL

HEPARIN SENSITIVITY

0 IU/mL	30 sec
0,2 IU/mL	70 sec
0,4 IU/mL	174 sec

FACTOR SENSITIVITY

Factor %	FVIII	FIX	FXI
<1 %	86 sec	71 sec	92 sec
10 %	46 sec	44 sec	51 sec
40 %	34 sec	34 sec	34 sec
100 %	29 sec	29 sec	29 sec

STABILITY & STORAGE

Storage:	2-8 °C
Shelf-life:	24 months at 2-8 °C
Open-vial stability:	30 days at 2-25 °C

ORDERING INFORMATION

Reference number	Product description	Size
MRX930	MRX APTT (reagent + CaCl ₂)	5x5 mL + 5x5 mL
MRX931	MRX APTT (reagent + CaCl ₂)	5x10 mL + 5x10 mL
MRX170	Eximius Control Basic (L1+L2+L3)	4+4+2x1 mL
MRX171/172/173	Eximius Control Basic (L1/L2/L3)	10x1 mL pack per level
MRX180	Eximius Control Plus (L1+L2+L3)	4+4+2x1 mL
MRX181/182/183	Eximius Control Plus (L1/L2/L3)	10x1 mL pack per level
GHI163/169	Scandinavian Basic Control (L1/L2)	10x1 mL pack per level
GHI162/167B	Scandinavian Multi Control (L1/L2)	10x1 mL pack per level
GHI164/170	Scandinavian Multi Plus Control (L1/L2)	10x1 mL pack per level