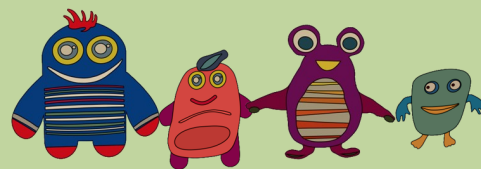






## DOACs

Direct Oral Anticoagulants



Direct oral anticoagulants (DOACs) is the generic term for a group of anti-coagulating substances that act directly against certain coagulation factors and can be taken orally.

Although the medication with DOACs does not require constant monitoring, there is an occasional need for control. To this end, the routine coagulation tests are of limited use and not recommended by the current guidelines (*J Thromb Haemost* 2013; 11:756-60).

Suitable methods for the detection are

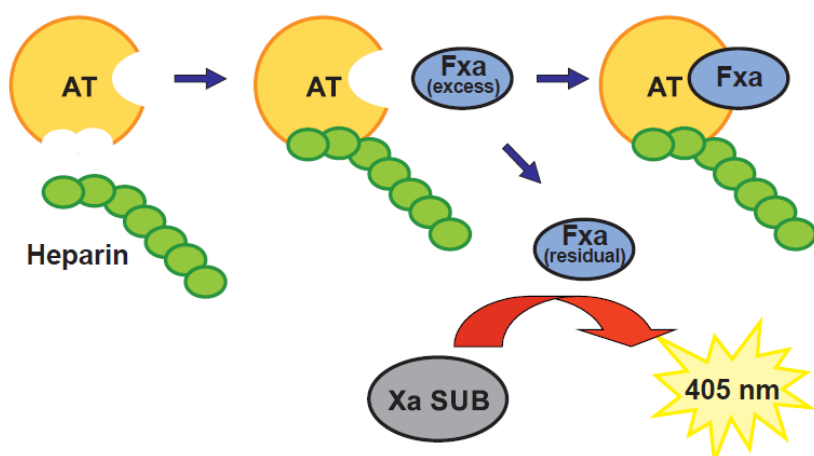
- for anti-FIIa typed DOACs the determination of thrombin time with Technoclot DTI and
  - for anti-FXa typed DOACs the determination of FXa activity with Technochrom anti-Xa.
- Despite the use of only two assays, individual calibration for each respective DOAC is required!

Patients under DOAC therapy should always carry a personal anticoagulation pass as it contains important information which might be essential for optimal treatment in emergency situations.

In any case the Summary of Product Characteristics (SPC) must be strictly observed.

## TECHNOCHROM anti-Xa

Technochrom anti-Xa is a one stage chromogenic assay for the determination of heparin, heparin-like anticoagulants and factor Xa inhibitors in human citrated plasma. The assay is based on the inhibition of activated factor X (FXa) by antithrombin (AT) or the direct inhibition of FXa by direct factor Xa inhibitors in the presence of heparin. The remaining free FXa cleaves a chromogenic substrate which is detected by colorimetry.

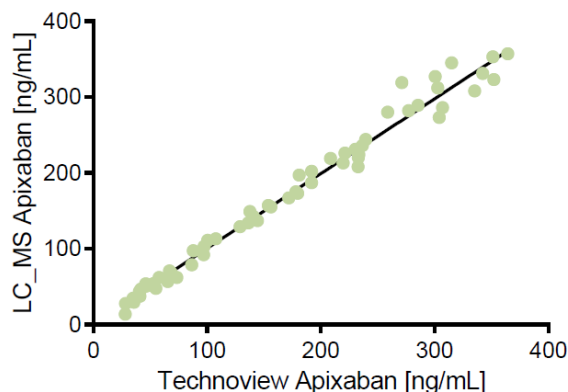


- Wide linear range
- Reduced interferences by hemoglobin and bilirubin
- Extended on-board stability
- Good precision and high sensitivity
- Applications for coagulation analyzers are available on request

Conventional used anticoagulants like low molecular weight heparin (LMWH), unfractionated heparin (UFH), Fondaparinux (Arixtra®), Danaparoid (Orgaran®) as well as DOACs like Rivaroxaban (Xarelto®), Apixaban (Eliquis®) and Edoxaban (Lixiana®, Savaysa®) can be tested with the Technochrom® anti-Xa assay, calibrated with the respective anticoagulant.

## Technoview APIXABAN

Apixaban is a direct factor Xa inhibitor and the active substance of the drug Eliquis®. Calibrator and control plasmas are prepared from citrated plasmas supplemented with different concentrations of Apixaban.



### Technoview Apixaban CAL

Calibrator set with 5 calibrators with different concentrations (~0 - 500 ng/ml) of Apixaban

### Technoview Apixaban CON L and CON H

Control plasma with low (~120 ng/ml) and high (~300 ng/ml) concentration of Apixaban

## Technoview EDOXABAN

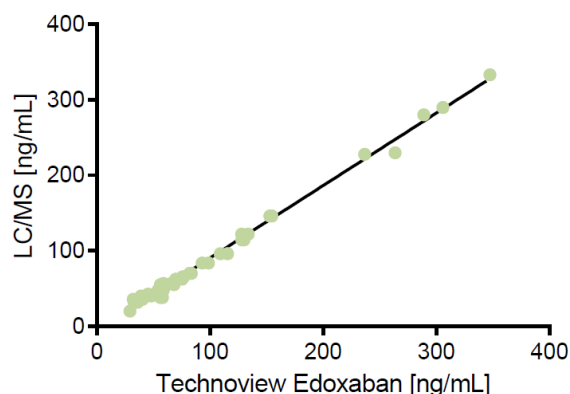
Edoxaban is a direct factor Xa inhibitor and the active substance of the drug Lixiana® and Savaysa®. Calibrator and control plasmas are prepared from citrated plasmas supplemented with different concentrations of Edoxaban.

### Technoview Edoxaban CAL

Calibrator set 5 calibrators with different concentrations (~0 - 500 ng/ml) of Edoxaban

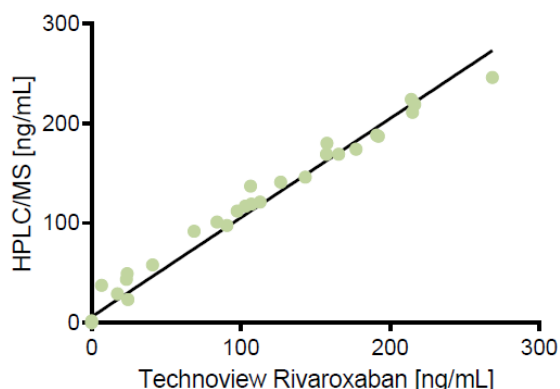
### Technoview Edoxaban CON L, CON M and CON H

Control plasma with low (~30 ng/ml), medium (~125 ng/ml) and high (~400 ng/ml) concentration of Edoxaban



## Technoview RIVAROXABAN

Rivaroxaban is a direct factor Xa inhibitor and the active substance of the drug Xarelto®. Calibrator and control plasmas are prepared from citrated plasmas supplemented with different concentrations of Rivaroxaban.



### Technoview Rivaroxaban CAL and CAL H

Two calibrator sets of 5 calibrators each, with different concentrations, for the low (~0 - 150 ng/ml) and high (~0 - 500 ng/ml) measurement range

### Technoview Rivaroxaban CON L, CON M and CON H

Control plasma with low (~60 ng/ml), medium (~110 ng/ml) and high (~300 ng/ml) concentration of Rivaroxaban

## Technoview ARIXTRA

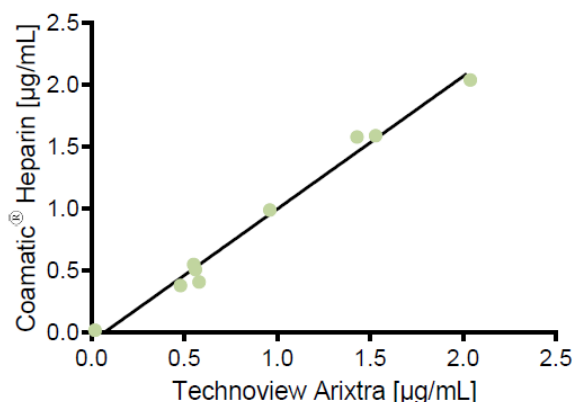
The antithrombotic activity of Fondaparinux sodium (Arixtra<sup>®</sup>) is based on an antithrombin-mediated selective inhibition of FXa. Calibrator and control plasmas are prepared from citrated plasmas supplemented with different concentrations of Arixtra.

### Technoview Arixtra CAL

Calibrator set with 5 calibrators with different concentrations (~0 - 2.0 µg/ml) of Arixtra

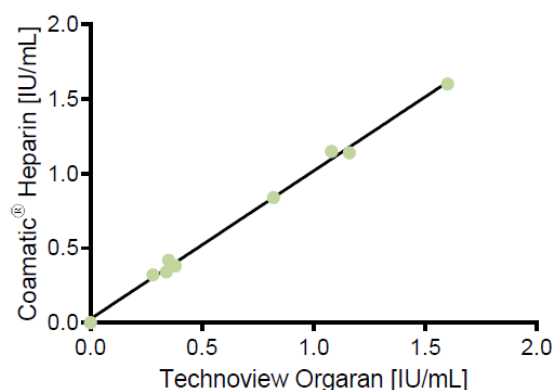
### Technoview Arixtra CON L and CON H

Control plasma with low (~0.4 µg/ml) and high (~1.2 µg/ml) concentration of Arixtra



## Technoview Organan

Danaproid sodium (Organan<sup>®</sup>) is an anticoagulant with a polysaccharide structure and is used as an alternative therapy in patients in which therapy with heparin or low molecular weight heparin is contraindicated. Calibrator and control plasmas are prepared from citrated plasmas supplemented with different concentrations of Organan.



### Technoview Organan CAL

Calibrator set with different concentrations (~0 - 1.6 IU/ml) of Organan

### Technoview Organan CON L and CON H

Control plasma with low (~0.5 IU/ml) and high (~1.0 IU/ml) concentration of Organan

## Technoview LMWH and Technoview UFH

Heparin is the most widely used antithrombotic drug. The biological activity is based on its ability to accelerate (up to 2000-times) the inhibitory effect of antithrombin on the coagulation proteases.

Calibrator and control plasmas are prepared from citrated plasmas supplemented with different concentrations of low molecular weight heparin, respective unfractionated heparin.

### Technoview LMWH CAL

Calibrator set with different concentrations (~0 - 1.6 IU/ml) of LMWH

### Technoview LMWH CON L, CON M and CON H

Control plasma with low (~0.35 IU/ml), medium (~0.7 IU/ml) and high (~1.1 IU/ml) concentration of LMWH

### Technoview UFH CAL

Calibrator set with different concentrations (~0 - 1.4 IU/ml) of UFH

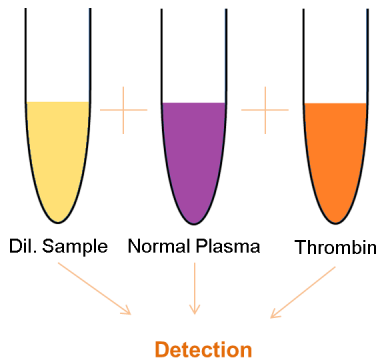
### Technoview UFH CON L and CON H

Control plasma with low (~0.2 IU/ml) and high (~0.5 IU/ml) concentration of UFH

# TECHNOCLOT DTI

Technoclot DTI is based on a modified thrombin time. The diluted sample is mixed with normal plasma and initiates clotting by addition of a defined amount of thrombin. The measured clotting time is directly proportional to the concentration of the thrombin inhibitor.

This concentration can be read from the corresponding calibration curve of anticoagulants Dabigatran (Pradaxa®) or Argatroban (Argatra®).



- Excellent reproducibility
- Excellent LC-MS/MS correlations
- Applications for auto-analyzers are available
- Good correlation with competitors

**No interferences by unfractionated (UFH) and low molecular weight heparin (LMWH)!**

## Technoview DABIGATRAN

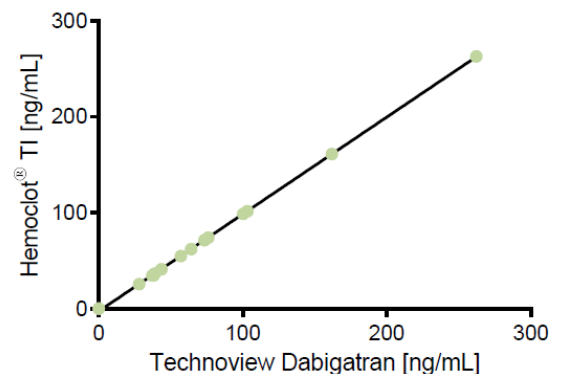
Dabigatran is a direct thrombin inhibitor and released of the prodrug Dabigatran-Etexilate. Calibrator and control plasmas are prepared from citrated plasmas supplemented with different concentrations of Dabigatran.

### Technoview Dabigatran CAL

Calibrator set with different concentrations (~50 - 500 ng/ml) of Dabigatran

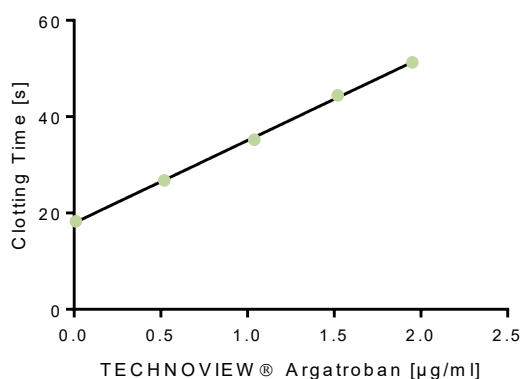
### Technoview Dabigatran CON L and CON H

Control plasma with low (~130 ng/ml) and high (~300 ng/ml) concentration of Dabigatran



## Technoview ARGATROBAN

Argatroban is available as a concentrate for solution for infusion (Argatra®). Calibrator and control plasmas are prepared from citrated plasmas supplemented with different concentrations of Argatroban.



### Technoview Argatroban CAL

Calibrator set with different concentrations (~0 - 2 µg/ml) of Argatroban

### Technoview Argatroban CON L and CON H

Control plasma with low (~0.7 µg/ml) and high (~1.2 µg/ml) concentration of Argatroban

Product	Contents	REF	Package
<b>Technochrom anti-Xa</b>	1 x 20 ml R1 anti-Xa Buffer 1 x 4 ml R2 bovine Factor Xa 1 x 4 ml R3 Substrate	5340250	~ 80 tests

Product	Contents	REF	Package
<b>Technoview Apixaban</b>	Calibrator Set of 5 calibrators (~ 0-500 ng/ml)	5090269	5 x 1 ml
	Low Control (~ 120 ng/ml)	5090271	5 x 1 ml
	High Control (~ 300 ng/ml)	5090270	5 x 1 ml
<b>Technoview Arixtra</b>	Calibrator Set of 5 calibrators (~ 0-2 µg/ml)	5090010	5 x 1 ml
	Low Control (~ 0.5 µg/ml)	5090012	6 x 1 ml
	High Control (~ 1.5 µg/ml)	5090014	6 x 1 ml
<b>Technoview Edoxaban</b>	Calibrator Set of 5 calibrators (~ 0-500 ng/ml)	5090250	5 x 1 ml
	Low Control (~ 30 ng/ml)	5090251	5 x 1 ml
	Medium Control (~ 125 ng/ml)	5090252	5 x 1 ml
	High Control (~ 400 ng/ml)	5090253	5 x 1 ml
<b>Technoview LMW Heparin</b>	Calibrator Set of 5 calibrators (~ 0-1.8 U/ml)	5090040	5 x 1 ml
	Low Control (~ 0.4 U/ml)	5090042	5 x 1 ml
	Medium Control (~ 0.9 U/ml)	5090044	5 x 1 ml
	High Control (~ 1.3 U/ml)	5090046	5 x 1 ml
<b>Technoview Orgaran</b>	Calibrator Set of 5 calibrators (~ 0-1.6 U/ml)	5090110	5 x 1 ml
	Low Control (~ 0.5 U/ml)	5090112	5 x 1 ml
	High Control (~ 1.0 U/ml)	5090114	5 x 1 ml
<b>Technoview Rivaroxaban</b>	Calibrator Set of 5 calibrators (~ 0-150 ng/ml)	5090170	5 x 1 ml
	Calibrator High Set of 5 calibrators (~ 0-500 ng/ml)	5090171	5 x 1 ml
	Low Control (~ 60 ng/ml)	5090172	5 x 1 ml
	Medium Control (~ 120 ng/ml)	5090173	5 x 1 ml
	High Control (~ 300 ng/ml)	5090174	5 x 1 ml
<b>Technoview UFH</b>	Calibrator Set of 5 calibrators (~ 0-1.5 U/ml)	5090070	5 x 1 ml
	Low Control (~ 0.2 U/ml)	5090072	5 x 1 ml
	High Control (~ 0.5 U/ml)	5090074	5 x 1 ml

Product	Contents	REF	Package
<b>Technoclot DTI</b>	1 x 1 ml R1 Normal Plasma 1 x 2 ml R2 DTI Reagent	5100025	~ 2 x 20 tests

Product	Contents	REF	Package
<b>Technoview Argatroban</b>	Calibrator Set of 5 calibrators (~ 0-2 µg/ml)	5090140	5 x 1 ml
	Low Control (~ 0.7 µg/ml)	5090142	5 x 1 ml
	High Control (~ 1.2 µg/ml)	5090144	5 x 1 ml
<b>Technoview Dabigatran</b>	Calibrator Set of 4 calibrators (~ 50-500 ng/ml)	5090210	4 x 1 ml
	Low Control (~ 150 ng/ml)	5090214	5 x 1 ml
	High Control (~ 300 ng/ml)	5090212	5 x 1 ml

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