ANTITHROMBIN FACTOR Xa

COAMATIC® ANTITHROMBIN

A chromogenic kit for the determination of antithrombin activity in human plasma. The use of factor Xa in preference to thrombin eliminates interference from heparin cofactor II and thrombin inhibitors.

Measurement principle

\[
\text{AT + Heparin} \rightarrow [\text{AT • Heparin}]
\]

\[
[\text{AT • Heparin}] + \text{FXa (excess)} \rightarrow [\text{AT • Heparin • FXa}]
\]

\[
[\text{AT • Heparin • FXa}] + \text{FXa (residual)} \rightarrow \text{Peptide + pNA}
\]

Reagents and their stability when opened

- Substrate S-2765: 1 vial, 6 months, 2-8°C
- Buffer with heparin: 1 vial, 3 months, 2-8°C
- FXa: 1 vial, 3 months, 2-8°C

Number of determinations

- Test tube method: 50
- Microplate method: 200
- Automated methods: up to 130

Article number: K821991

COAMATIC® LR ANTITHROMBIN

A chromogenic kit for the determination of antithrombin activity in human plasma. The use of factor Xa in preference to thrombin eliminates interference from heparin cofactor II and thrombin inhibitors. Reagents in liquid formulation.

Measurement principle

\[
\text{AT + Heparin} \rightarrow [\text{AT • Heparin}]
\]

\[
[\text{AT • Heparin}] + \text{FXa (excess)} \rightarrow [\text{AT • Heparin • FXa}]
\]

\[
[\text{AT • Heparin • FXa}] + \text{FXa (residual)} \rightarrow \text{Peptide + pNA}
\]

Reagents and their stability when opened

- Substrate S-2772: 2 vials, 6 months, 2-8°C
- FXa with heparin: 6 vials, 1 month, 2-8°C

Number of determinations

- Automated methods: up to 450

Article number: K822957

ANTITHROMBIN 10 IU

Composition and purity

Lyophilised powder prepared from human plasma after affinity chromatography on heparin-Sepharose gel. Contains human albumin as a stabiliser.

Included in Coatest® Heparin

Package 1x10 IU

Note: This preparation is not a standard.

Article number: B820720

ANTITHROMBIN 25 IU

Composition and purity

Lyophilised powder prepared from human plasma after affinity chromatography on heparin-Sepharose gel. Pure preparation, does not contain stabiliser.

Package 1x25 IU

Note: This preparation is not a standard.

Article number: B810796

FXa

Composition and purity

Lyophilised powder prepared from bovine plasma and purified by barium citrate adsorption and liquid chromatography. Activation is performed by matrix bound activator from Russell’s Viper Venom. Contains buffer salts, albumin and polyethylene glycol. The activity (71 nkat) is determined with the substrate S-2222.

Included in Coatest® Heparin

Package 10x71 nkat

Article number: B820985
**COATEST® APC™ RESISTANCE V COATEST® APC™ RESISTANCE V-S**

An APTT-based kit for screening of factor V-related APC resistance. The high sensitivity and specificity of the test for the factor V:Q506 mutation is obtained by prediluting the sample plasma with an excess of V-DEF Plasma. The test design makes it possible to discriminate between heterozygous and homozygous factor V genotypes. It also allows for analysis of plasma from patients on heparin or oral anticoagulant therapy.

**Measurement principle**
One volume of plasma is prediluted with four volumes of V-DEF Plasma. The dilution is then incubated with the APTT reagent for a standard period of time. Coagulation is triggered by the addition of CaCl₂ in the absence and presence of exogenous APC and the time for clot formation is recorded.

**Reagents and their stability when opened**
- **V-DEF Plasma**: 4x4 ml (V) 2x4 ml (VS)
  - 8 hours 15-25°C
  - 24 hours 2-8°C
  - 3 months -20°C
- **CaCl₂**: 1x8 ml (V) 2x2 ml (VS)
  - 1 week 15-25°C
  - 1 month 2-8°C
- **APTT reagent**: 1x16 ml (V) 2x2 ml (VS)
  - 1 week 15-25°C
  - 1 month 2-8°C
- **APC/CaCl₂**: 4x2 ml (V) 2x2 ml (VS)
  - 8 hours 15-25°C
  - 5 days 2-8°C
  - 3 months -20°C
- **Control Plasma Level 1**: 1x1 ml
  - 6 hours 2-25°C
  - 3 months -20°C
- **Control Plasma Level 2**: 1x1 ml
  - 6 hours 2-25°C
  - 3 months -20°C

**Number of determinations**
- Automated methods 80-160

**Article number:** K822643

**CONTROL PLASMA LEVEL 1 COATEST® APC™ RESISTANCE**

Composition
Lyophilised citrated, stabilised human plasma prepared from pools of plasma collected from healthy donors.

**Application**
Quality control of Coatest® APC™ Resistance and Coatest® APC™ Resistance V.

**Package**
5x1 ml

**Article number:** C822650

**COATEST® APC™ RESISTANCE**

An APTT-based assay for the detection of the APC resistance phenotype, i.e., the poor anticoagulant response to activated protein C (APC). The test result (APC ratio) gives an estimation of the anticoagulant function in vivo and provides information on the thrombotic risk associated with inherited and acquired APC resistance.

**Measurement principle**
Plasma is incubated with the APTT reagent for a standard period of time. Coagulation is initiated by the addition of CaCl₂ in the absence and presence of APC and the time for clot formation is recorded.

**Reagents and their stability when opened**
- **CaCl₂**: 1x8 ml 1 week 15-25°C
  - 1 month 2-8°C
- **APTT reagent**: 1x16 ml 1 week 15-25°C
  - 1 month 2-8°C
- **APC/CaCl₂**: 4x2 ml 8 hours 15-25°C
  - 5 days 2-8°C
  - 3 months -20°C

**Number of determinations**
- Automated methods 80-160

**Article number:** K822650
**HEPARIN**

**COAMATIC® HEPARIN**

A chromogenic kit for the determination of heparin and low molecular weight (LMW) heparin in human plasma. One-stage assay optimized for a wide range of instruments.

**Measurement principle**

\[
[\text{AT} \cdot \text{Heparin}]_+ \text{FXa} \rightarrow [\text{FXa} \cdot \text{AT} \cdot \text{Heparin}] \rightarrow \text{Peptide + pNA}
\]

**Reagents and their stability when opened**

| Substrate S-2732 | 2 vials | 6 months | 2-8°C |
| Factor Xa | 2 vials | 3 months | 2-8°C |

**Number of determinations**

- Test tube method: 50
- Microplate method: 200
- Automated methods: 120

**Article number:** K823393

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**COATEST® HEPARIN**

A chromogenic kit for the determination of heparin and low molecular weight heparin in human plasma.

**Measurement principle**

\[
\text{Heparin + AT (excess)} \rightarrow [\text{Heparin} \cdot \text{AT}] \rightarrow [\text{Heparin} \cdot \text{AT}] + \text{FXa (excess)} \rightarrow \text{[Heparin} \cdot \text{AT} + \text{FXa (excess)} \rightarrow \text{[Heparin} \cdot \text{AT} \cdot \text{FXa (residual)} + \text{FXa (residual)} \rightarrow \text{Peptide + pNA}
\]

**Reagents and their stability when opened**

| Substrate S-2222 | 1 vial | 6 months | 2-8°C |
| Factor Xa | 1 vial | 1 month | 2-8°C |
| Antithrombin | 1 vial | 1 month | 2-8°C |
| 6 months | -20°C |
| Buffer | 1 vial | 2 months | 2-8°C |
| Normal plasma | 4 vials | 2 weeks | 2-8°C |
| 1 month | -20°C |

**Number of determinations**

- Test tube method: 100
- Microplate method: 400
- Automated methods: up to 285

**Article number:** K255539

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**CALIBRATION PLASMA-LMW HEPARIN**

Composition

Lyophilised human plasma, calibrated against the 1st International WHO standard (LMW heparin).

**Application**

For construction of calibration curves for use in chromogenic heparin assays.

**Package**

- calibrator 1: 4x1 ml
- calibrator 2: 4x1 ml
- calibrator 3: 4x1 ml

**Article number:** C823500

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**CONTROL PLASMA-LMW HEPARIN**

Composition

Lyophilised human plasma prepared by addition of LMW heparin. Calibrated against the 1st International WHO standard (LMW heparin).

**Application**

Quality control of chromogenic heparin assays.

**Package**

- Low: 4x1 ml
- High: 4x1 ml

**Article number:** C823492
FACTOR VIII

The Factor VIII kits have two measuring ranges. Validated and documented protocols for automated instruments. All the Factor VIII kits can be used for the potency estimation of Factor VIII according to the European Pharmacopoeia requirements.

COAMATIC® FACTOR VIII
A chromogenic kit for the determination of factor VIII activity in human plasma, blood fractions and purified preparations. Fulfills the requirements of the European Pharmacopoeia for factor VIII concentrate testing.

Measurement principle
Factor X → FIXa, Ca²⁺, phospholipid → FXa
FVIII
S-2765 → FXa → Peptide + pNA

Reagents and their stability when opened
S-2765+I-2581 1 vial 1 month 2-8°C
Factor reagent 2 vials 1 day 2-8°C
Buffer 1 vial 1 month -70°C

Number of determinations
Test tube method 30
Microplate method 120
Automated methods up to 100

Article number: K822585

COATEST® SP FACTOR VIII
Classic chromogenic kit for the determination of factor VIII activity in human plasma, blood fractions and purified preparations. Replaces Coatest Factor VIII (K821033).

Measurement principle
Factor X → FIXa, Ca²⁺, phospholipid → FXa
FVIII
S-2765 → FXa → Peptide + pNA

Reagents and their stability when opened
S-2765+I-2581 1 vial 3 months 2-8°C
FIXa+FX 1 vial 12 hours 2-8°C
CaCl₂ 1 vial 3 months -20°C
Buffer 1 vial 3 months 2-8°C
Phospholipid 1 vial 3 months 2-8°C

Number of determinations
Test tube method 60
Microplate method 240
Automated methods up to 200

Article number: K824086

COATEST® SP4 FACTOR VIII

Measurement principle
Factor X → FIXa, Ca²⁺, phospholipid → FXa
FVIII
S-2765 → FXa → Peptide + pNA

Reagents and their stability when opened
S-2765+I-2581 1 vial 3 months 2-8°C
FIXa+FX 4 vials 12 hours 2-8°C
CaCl₂ 1 vial 3 months -20°C
Buffer 1 vial 3 months 2-8°C
Phospholipid 1 vial 3 months 2-8°C

Number of determinations
Test tube method 4x15
Microplate method 240
Automated methods up to 200

Article number: K824094
CHROMOGENIC SUBSTRATES

S-2222™

Chromogenic substrate for factor Xa.

Packages 25 mg

Article number: S820316

Formula: Bz-Ile-Glu(γ-OR)-Gly-Arg-pNA•HCl
R=H (50%) and R=CH₃ (50%)
Molecular weight: 741.3

S-2238™

Chromogenic substrate for thrombin.

Packages 25 mg

Article number: S820324

Formula: H-D-Phe-Pip-Arg-pNA•2HCl
Molecular weight: 625.6

S-2251™

Chromogenic substrate for plasmin and streptokinase-activated plasminogen.

Packages 25 mg

Article number: S820332

Formula: H-D-Val-Leu-Lys-pNA•2HCl
Molecular weight: 551.6

S-2288™

Chromogenic substrate for t-PA and a broad spectrum of other serine proteases.

Packages 25 mg

Article number: S820852

Formula: H-D-Ile-Pro-Arg-pNA•2HCl
Molecular weight: 577.6

Well characterized substrates for many serine proteases in the coagulation and fibrinolytic system.
<table>
<thead>
<tr>
<th>CHROMOGENIC SUBSTRATES</th>
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<tr>
<td><strong>S-2302™</strong></td>
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<tr>
<td>Chromogenic substrate for plasma kallikrein and factor XIIa.</td>
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<tr>
<td>Packages 25 mg</td>
</tr>
<tr>
<td>Article number: S820340</td>
</tr>
<tr>
<td>S-2302 Formula: H-D-Pro-Phe-Arg-pNA•2HCl Molecular weight: 611.6</td>
</tr>
</tbody>
</table>

| **S-2366™**            |
| For General Laboratory Use |
| Chromogenic substrate for activated protein C and factor XIa. |
| Packages 25 mg |
| Article number: S821090 |
| S-2366 Formula: pyroGlu-Pro-Arg-pNA•HCl Molecular weight: 539.0 |

| **S-2403™**            |
| For General Laboratory Use |
| Chromogenic substrate for plasmin and streptokinase-activated plasminogen. |
| Packages 25 mg |
| Article number: S822254 |
| S-2403 Formula: pyroGlu-Phe-Lys-pNA•HCl Molecular weight: 561.0 |

| **S-2765™**            |
| For General Laboratory Use |
| Chromogenic substrate for factor Xa. |
| Packages 25 mg |
| Article number: S821413 |
| S-2765 Formula: Z-D-Arg-Gly-Arg-pNA•2HCl Molecular weight: 714.6 |

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