

## Precision Through Electrochemistry

### Revolutionizing PT/INR Testing with Electrochemical Technology

The Xprecia Prime PT/INR Analyzer utilizes advanced electrochemical (EC) technology to provide healthcare professionals and patients with a fast, accurate, and reliable solution for monitoring blood coagulation. This handheld device, combined with calibrated test strips, delivers lab-quality results within seconds, redefining point-of-care (POC) testing.

## How Electrochemistry Ensures Accuracy & Precision

Electrochemical sensors work by detecting biochemical reactions in a blood sample and converting them into measurable electrical signals. This scientifically validated method ensures:

- ✓ **High Sensitivity:** Detects small changes in clotting factors.
- ✓ **Selective Measurement:** Differentiates specific extrinsic pathway from intrinsic clotting cascade.
- ✓ **Repeatable & Reliable Data:** Provides consistent readings comparable to laboratory methods.

### Xprecia Prime EC Strips Are Designed for Performance:

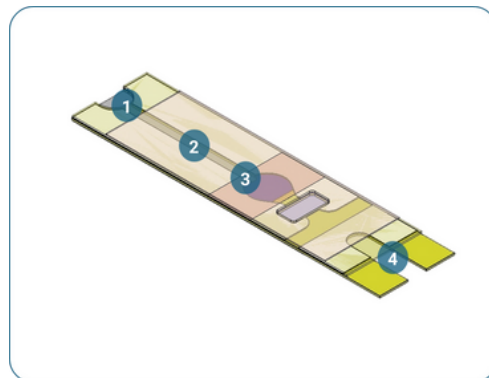
- ✓ Precision-engineered chemistry ensures accurate clot detection.
- ✓ Advanced chrono-amperometric signal processing provides high-resolution results.
- ✓ Minimal blood sample (~8µL) reduces discomfort while maintaining accuracy.



## How Xprecia Prime's Electrochemical Technology Works

### PT/INR Measurement Process

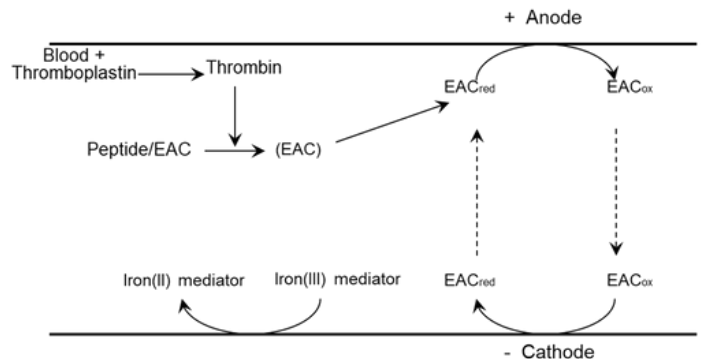
- 1. Voltage sequence applied to electrodes** – Initiates the electrochemical reaction once the sample has been detected.
- 2. Blood sample interacts with test strip reagents** – Triggering clotting factor response. As Thrombin cleaves the EAC (Electro-Active Compound) the current increases.
- 3. Real-time current flow is measured** – Capturing coagulation activity. Once the current reaches an end point the test is complete.
- 4. Signal processing algorithm calculates PT/INR value from clotting time.**
- 5. Final result displayed in INR and PT seconds** – Enabling immediate clinical decision-making.



- 1 Blood drop application
- 2 Capillary action
- 3 Reaction chamber
- 4 Electrical pads

## Electrochemical Chemistry Behind PT/INR Measurement

- **Chemical Composition:** Test strips use a peptide with an Electro-Active leaving group to facilitate clotting factor analysis.
- **Blood Activation:** The strip contains a thromboplastin to initiate a measurable response.
- **Electrochemical Reaction:** The device records current increase over time, translating measured currents into PT/INR values using a Signal Processing Algorithm.



## Why Healthcare Professionals Trust Xprecia Prime

### ✦ Precision & Accuracy

- **Scientifically validated correlation** with reference lab PT/INR methods.
- Electrochemical technology **minimizes human error**, ensuring **reliable, reproducible** results.
- The device **automatically adjusts** for batch-to-batch calibration variations, ensuring **consistent accuracy** with each **new strip batch**.

### ✦ Efficiency & Time Savings

- **Results in less than a minute** – eliminates delays from lab testing.
- **Simple workflow** – minimal training required for use.
- **On-the-spot decisions** – reduces unnecessary patient follow-ups.

### ✦ Cost-Effective & Scalable

- Test strips are significantly **more affordable than standard lab tests**.
- **No need for venous blood draws** – reduces patient discomfort and clinic workload.
- **Portable design** enables **bedside, home, and clinic** testing.

## Xprecia Prime's Impact on Patient Care

- ✓ **Improved Warfarin Management:** Real-time INR tracking reduces the risk of over- or under-anticoagulation.
- ✓ **Better Compliance & Patient Outcomes:** Immediate results improve adherence to therapy adjustments.
- ✓ **Enhanced Workflow for Healthcare Providers:** Saves time for physicians, nurses, and lab technicians.

## The Future of PT/INR Testing is Here

With **Xprecia Prime**, healthcare professionals and patients can **replace slow, outdated lab testing** with **modern electrochemical POC solutions** for **faster, more informed clinical decisions**.

✦ **Experience precision, efficiency, and ease of use. Try Xprecia Prime today!**

🔗 **Learn more at:** [www.universalbiosensors.com](http://www.universalbiosensors.com)