NOx Analyzer | ENO-30

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Nitrite and Nitrate Analyzer | ENO-30

Streamline Your Nitrite and Nitrate Analysis

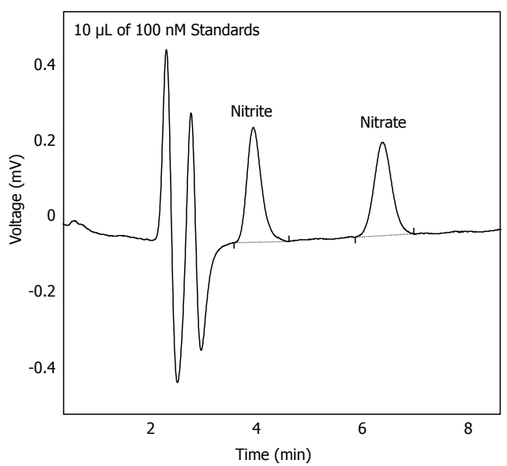
ENO-30 Features

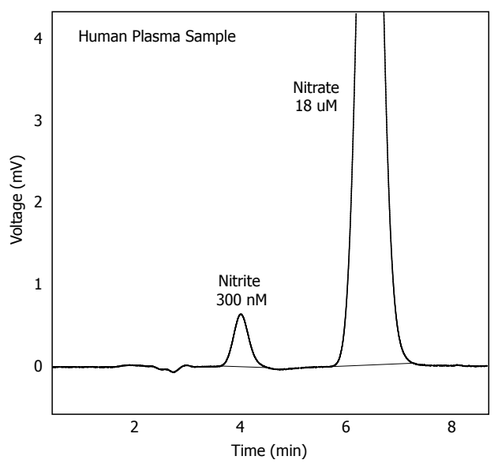
- **Suitable for all biological fluids (1-50 µL injections)**
- **Both Nitrite and Nitrate from single measurement**
- **Sensitivity is better than 0.1 pmol (10 nM for 10 µL)**
- **Easily automated to run 144 samples per day**

The ENO-30 continues the tradition of Eicom's successful ENO-20 NOx analyzer. The ENO-30 system is a specialized HPLC for separating and detecting nitrite and nitrate in various biological fluids. The system makes use of a simple Griess reaction, in which nitrite reacts to form a light absorbing compound that can easily be detected. However, compared to a typical plate or tube based Griess assay, the ENO-30 greatly enhances sensitivity and reproducibility. In addition, high throughput analysis is achieved by pairing the instrument with an HPLC autosampler, an impossible feat for the gas phase chemiluminescent detectors sometimes used to detect nitric oxide. Data collection, calibration, and analysis are handled by Eicom's Envision software package.

Nitrite and Nitrate Appear as Two Peaks

Each injection measures both nitrite and nitrate. Peak sizes are proportional to concentration in the sample.

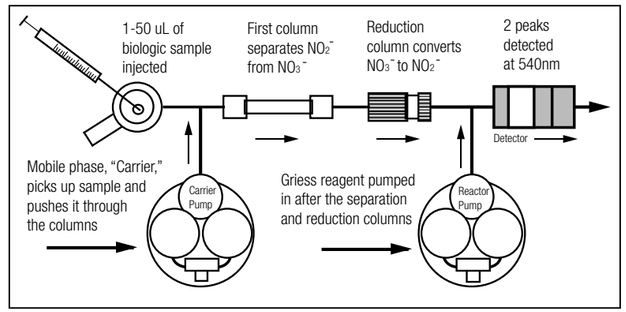




Perfect for Biological Samples

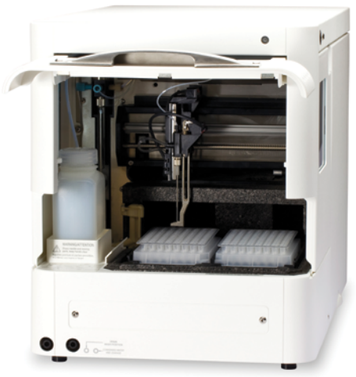
Sensitive enough for small volume biological samples. The typical sample is just 1-50 µL of blood plasma, urine, saliva, breathe condensate, tissue homogenate, cell culture supernatant, or microdialysate. Simple sample preparation consist of the addition of an equal volume of methanol to inactive and precipitate proteins, whereas low protein samples can be direct injected without prior manipulation.

How does it work?



Automated Analysis

Add an autosampler for high throughput analysis.



AS-700 Insight Autosampler

- **Holds 2x 96-well plates or 192 small vials**
- **Allows ENO-30 to run all day and night without you**
- **Sample cooling without condensation**
- **Controlled via the Envision chromatography software**

Specifications

Pump Unit

Type	Two independent dual reciprocating pumps
Flow Rate	Each settable ~1 – 750 µL/min Carrier: 0.33 mL/min Reactor: 0.10 mL/min
Stroke	4 µL replacement volume
Pulse Damping Function	Actively, computer-controlled, based on pressure feedback mechanism
Maximum Pressure	20 MPa
Pressure Limit	Settable between 0-20 Mpa (error 1 triggered)

Piston Material	Sapphire
Other Liquid Contacting Surfaces	PEEK, Sapphire, Ruby, PTFE, PCTFE
Degasser	Two 300 µL loops
Size	400 (W) x 400 (D) x 190 (H) mm
Power	AC100-240V 50/60Hz , 200W
Weight	~ 16 kg

Detector/Oven Unit

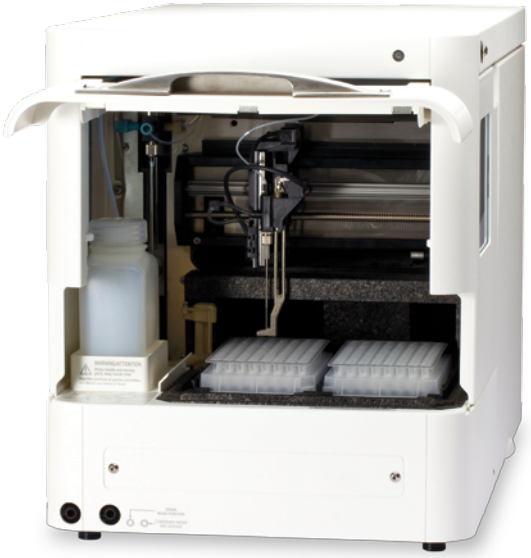
Detection Principle	Light absorption at 540 nm (diazo compound)
Detection Limit	10 nM × 10 µL (0.1 pmol)
Temperature Control	15 °C – 45 °C at room temp of 25 °C
Temperature Accuracy	± 0.1 °C

Weight	~ 11 kg
Power	AC100-240V 50/60Hz , 210W
Size	400 (W) x 400 (D) x 145 (H) mm

AS-700 INSIGHT Autosampler

- **Robust mechanism for greater reliability**
- **Fits two standard microtiter plates**
- **Zero sample loss injection methods**
- **Efficient cooling without condensation issues**

Autosamplers increase the precision of HPLC data and easily handle OPA derivatization methods. Why not let the reliable INSIGHT autosampler inject your samples while you focus on more important things? Your time is valuable.



Great Choice for Small Samples

Many scientists are forced to deal with limited sample volumes, which raises the issue of how much of the sample can actually be injected. With Eicom's INSIGHT autosampler just 10 µL out of 12, or even 11 µL, can be injected without wasting any sample during the injection process. In many small volume injection methods, the sample volume is loaded into the sample loop between two segments of wash fluid. Once injected, the wash fluid complicates the solvent front which decreases the sensitivity for early eluting compounds. The Eicom Microliter Pick-up (EMP) injection method avoids this problem by only injecting sample and mobile phase.

AS-700 SPECIFICATIONS	
Sample Capacity	2 standard microtiter plates, 12 wells to 384 wells
Cooling	4°C to room temperature by convection across Peltier cooler
Special Features	Integrated 200 mL wash bottle, plate/vial detection, head pressure
Syringe	500 µL (standard)
Sample Loop	100 µL (standard)
Wetted Surfaces	FEP (tubing), passivated stainless steel (needle), PEEK (injection valve)
Instrument Control	
Software	Envision (Standard), Powerchrom, Clarity, EZ Chrom, others
Communication	Serial RS232C (USB with adaptor)
I/O Signals	Programmable relay outputs and TTL inputs

Eicom USA
7098 Miratech Drive, Suite 100, San Diego, California 92121
E. info@eicomusa.com **P.** 888.680.7775 **F.** 858.560.8040
www.eicomusa.com