

A rapid high performance analysis based on the direct reaction with the specific enzyme Lactate Oxidase.

Bulletin Reference	TB – Lactate – Industrial – GMRD-293/292 – V.01
Order Code(s)	GMRD-293/292
Reagent Kit Size(s)	175 ml (250 analyser cycles), 4 x 175 ml (4 x 250 analyser cycles)
Instruments	All LM5, GL6 and GM8 Series analysers
Samples	Aqueous or semi-aqueous samples such as dairy products, e.g. milk, can be used directly
Sample Volume	5 µl
Analysis Time	20 seconds
Working Range	0.06 - 14 mmol/L (ca. 0.5 - 126 mg/dl)
Reagent Stability	Shelf-life reconstituted: 60 days stored at 0 - 5°C.
Note	<p>Sample opacity or turbidity presents no problem since the detection method is electrochemical rather than spectrophotometric.</p> <p>Specimens should be in the pH range 4 - 8 and free from overt bacterial contamination.</p> <p>Lactate methodology has excellent precision at all levels, stable calibration, and is remarkably free from interferences.</p> <p>Alternative standards at 3.0 (27.0 mg/dl) and 5.0 mmol/L (45.0 mg/dl), and a quality control material, are available in addition to the kit calibrant of 8.0 mmol/L (72.1 mg/dl).</p> <p>The enzyme lactate oxidase is 100 % specific to L-Lactate. D-lactate is not measured.</p>

## Principle

In the presence of molecular oxygen, lactate is oxidised by the enzyme Lactate Oxidase (LOD) to pyruvate and hydrogen peroxide,



Under the conditions of the assay, the rate of oxygen consumption is directly proportional to the L-lactate concentration.