

A fast enzymatic analysis for plasma Pyruvate.

Bulletin Reference	TB – Pyruvate– Clinical – GMRD-140 – V.01
Order Code(s)	GMRD-140
Reagent Kit Size(s)	100 ml (140 analyser cycles)
Instruments	All GM7 series analysers
Samples	Plasma (Heparinised)
Sample Volume	100 µl
Analysis Time	20 seconds (from injection)
Linearity	1000 µmol/L (8.8 mg/dl)
Detection Limit	20 µmol/L (0.18 mg/dl)
Precision (Within Run)	C.V. of 4 - 6 % @ 200 µmol/L (1.8 mg/dl) C.V. of 2 - 4 % @ 450 µmol/L (4.0 mg/dl)
Accuracy	Method comparison vs Spectrophotometric UV (Sigma): y (Analox) = 1.03 (Spectro) - 0.1 mg/dl, r = 0.940, n = 46
Reagent Stability	Shelf-life unopened: 9 months stored at 0 - 5°C. Shelf-life reconstituted: NADH reagent 10 days stored at 0 - 5°C; POD reagent 5 - 6 weeks at 0 - 5°C.
Note	The number of tests may be doubled by using half volumes (micro-method). A sample blank allows for background interference.

## Principle

i) In the presence of excess NADH, endogenous plasma lactate dehydrogenase (LDH) rapidly converts pyruvate to lactate in a brief pre-reaction,



Under the conditions of the assay, the rate of oxidation of excess NADH by peroxidase (POD) is inversely proportional to the pyruvate concentration.

