BIOXYTECH® pl·GPx-EIA™

Enzyme Immunoassay for Human Plasma Glutathione Peroxidase
For Research Use Only. Not For Use In Diagnostic Procedures.

Catalog No. 21014

INTRODUCTION

Glutathione peroxidases are selenoenzymes which catalyse the reduction of hydroperoxides (H_2O_2 or ROOH) in the presence of glutathione (GSH). Human blood contains, in addition to Se-GPx in erythrocytes, a plasma-specific glutathione peroxidase (pl·GPx). pl·GPx is a tetramer of approximately 94-100 kDA. (Maddipati, 1987; Takahashi, 1987). Each of the 4 identical subunits contains an active site with an essential selenocysteine residue. pl·GPx differs from the other glutathione peroxidases by its primary sequence, its glycosylated N-terminal region and its extra-cellular location. Initially purified from human plasma, pl·GPx has also been found in human milk (Avissar, 1991). Recently, it was reported that pl·GPx is mostly synthesized and secreted by renal cells from rat kidney (Yoshimura, 1991). Another study has shown that a human liver hepatoblastoma cell line (Hep G2) synthesizes and secretes pl·GPx (Avissar, 1989).

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Methodology	Enzyme Immunoassay
Specimen Requirements	Human serum or heparinized plasma
Specificity	Specific for human plasma (extracellular) GPx. No interferences observed.
Sensitivity	2.5 ng/mL
Assay Standard Curve Range	4.7 - 300 ng/mL
Expected Values	Normal human plasma: 4 - 8 µg/mL**
Tests per Kit	96 tests
Storage and Stability	Twelve months from date of manufacture when stored at 2° - 8° C
Kit Contents	• 96 antibody-coated microtiter wells (3 x 32) • Purified pl·GPx standard • Rabbit biotin-coupled polyclonal anti-pl·GPx • Streptavidin-coupled alkaline phosphatase • 4 pNPP tablets • Diluting and washing buffers • Stop solutions