EPO ELISA

FDA Cleared

NEW 0.6 mIU/mL LOW END SENSITIVITY

ERYTHROPOIETIN

Quantitative Measurement of Erythropoietin (EPO)

EPO: For the Diagnosis of Anemias and Erythrocytosis

Unique
Diagnostic adjunct in determining cause of anemia or erythrocytosis and Monitoring of the drug Rx Epogen.

Advanced
Direct label 2-site ELISA for reliability and convenience, capture antibody with distinctly different epitope is conjugated with biotin

Enhanced 0.6 mIU/mL low-end sensitivity

Accurate
Excellent patient sample correlation

Simple
Single step incubation and one washing step (2-site sandwich assay)

Convenient
Same-day Assay - 2 hour incubation for the sandwich assay+1/2 hour reaction color development

BIOMERICA

INTENDED USE

The Biomerica EPO Immunoassay is a two-site ELISA [Enzyme-Linked ImmunoSorbent Assay] for the quantitative measurement of the biologically active 165 amino acid chain of Erythropoietin (EPO) in human serum. The simple 2 ½ hour ELISA test is intended for in vitro diagnostic use, as an aid in the diagnosis of anemias and polycythemias. With the advent of the administration of recombinant erythropoietin as a biologic therapy to increase red blood cell mass, an erythropoietin assay may be used also to aid in the prediction and monitoring of response to recombinant erythropoietin treatment in persons with anemias.

BACKGROUND

Human EPO is a polypeptide consisting of 165 amino acids and is a heavily glycosylated protein with a molecular weight of about 30,000 - 34,000 Daltons. Serum EPO levels are dependent on the rate of production and the rate of clearance of the protein. Ninety percent of EPO is produced in the peritubular cells of the adult kidney in response to a decrease in tissue oxygenation[3,4].

Quantitation of serum erythropoietin concentration serves as a diagnostic adjunct in determining the cause of anemia or erythrocytosis. Aplastic anemia, hemolytic anemia and anemia due to iron deficiency all result in serum EPO elevation. Whereas, EPO levels in patients with secondary anemia due to renal failure and other disorders such as acquired immune deficiency syndrome (AIDS) are generally inappropriately low for the degree of anemia. The illegal use of EPO and EPO derivatives by athletes has also spurred demand for EPO testing.

Polycythemia rubra vera, or primary erythrocytosis (an increase of red blood cell mass) results from unstimulated over production of erythrocytes. Hence, the increase in the hemoglobin causes decreased production of EPO, which results in subnormal levels of serum EPO[9].

PERFORMANCE

	Assay Time	*Accuracy*	*Sensitivity*
EPO:	2 1/2 hrs.	Biomerica ELISA = 0.94 ELISA Kit - 0.41 mIU/mL r=0.989 N=85	0.6 mIU/mL

ORDERING

Catalog No.	Description
7025	EPO ELISA kit - Quantitative (96 tests)
7025B	EPO Bulk - Unlabeled (minimum quantities required)

CE and EN ISO 13485:2003 Compliant, Multi-language inserts available

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BIOMERICA

17571 Von Karman Avenue • Irvine, CA 92614 USA • Tel (949) 645-2111
Fax (949) 553-1231 • email: bmra@biomerica.com • www.biomerica.com

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