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Datasheet for ABIN930355 EPO ELISA Kit



Overview

1 kit
EPO
Hormone
Sandwich ELISA
ELISA

Product Details

Analytical Method:	Quantitative
Detection Method:	Colorimetric
Characteristics:	ELISA kit for the detection of EPO in the research laboratory Alternative Names: EPO ELISA kit, Erythropoietin ELISA kit, EP ELISA kit, Epoetin ELISA kit
Purification:	Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephospho-peptide affinity columns.

Target Details

Target:	EPO
Alternative Name:	EPO (EPO Products)
Target Type:	Hormone
Background:	Erythropoietin (EPO) is a heavily glycosylated protein with a molecular weight of about 30,000- 34,000 Da. Human EPO is a polypeptide consisting of 165 amino acids, containing one O-linked and three N-linked carbohydrate chains. The recombinant EPO is a good substitute for the

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 1/3 | Product datasheet for ABIN930355 | 05/14/2025 | Copyright antibodies-online. All rights reserved. native protein for use in an immunoassay. 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. There is evidence indicating that the protein on these cells which detects oxygen saturation of the blood is a heme-containing moiety. As the pO2 of the plasma, a function of the hematocrit decreases, EPO concentration will increase. There are also observations suggesting that normally there is an inverse correlation between serum EPO levels and red blood cell mass. 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. This is mostly likely caused by an impaired ability of the diseased kidney to produce adequate quantities of EPO8. Low concentrations of EPO may give an early warning of kidney transplant rejection. EPO also can be used to monitor AIDS patients undergoing Zidovudine (AZT) therapy. An increased concentration of EPO verifies that anemia associated with AZT therapy is due to red cell hypoplasia or apliasia.

Synonyms: EPO ELISA kit, Erythropoietin ELISA kit, EP ELISA kit, Epoetin ELISA kit.

Pathways:

JAK-STAT Signaling, Hormone Activity, Negative Regulation of intrinsic apoptotic Signaling, Negative Regulation of Transporter Activity

Application Notes:	Optimal conditions to be determined by end user
Plate:	Pre-coated
Assay Procedure:	The EPO Immunoassay is a twosite ELISA [EnzymeLinked ImmunoSorbent Assay] for the measurement of the biologically active 165 amino acid chain of EPO. A sheep polyclonal antibody to human EPO, purified by affinity chromatography, is biotinylated. A mouse monoclonal antibody to human EPO is labeled with horseradish peroxidase [HRP] for detection. In this assay, calibrators, controls, or patient samples are simultaneously incubated with the enzyme labeled antibody and a biotin coupled antibody in a streptavidincoated microplate well. At the end of theassay incubation, the microwell is washed to remove unbound components and the enzyme bound to the solid phase is incubated with the substrate, tetramethylbenzidine
	(IMB). An acidic stopping solution is then added to stop the reaction and converts the color to yellow. The intensity of the yellow color is directly proportional to the concentration of EPO in

Application Details

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App	lication	Detai	ls
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	the sample. A dose response curve of absorbance unit vs. concentration is generated using
	results obtained from the calibrators. Concentrations of EPO present in the controls and patient
	samples are determined directly from this curve. The standards have been calibrated against
	the World Health Organization (WHO) erythropoietin international standard which consists of
	recombinant DNA derived EPO. The WHO reference standard used was erythropoietin 1st
	international standard (87/684).
Restrictions:	For Research Use only
Handling	
Storage:	4 °C
Storage Comment:	Store at 2-8 °C.