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(54) Title: METHODS FOR IN VITRO DETERMINATION OF ERYTHROPOIETIN BIOACTIVITY

(57) Abstract

The present invention is directed to an *in vitro* method of determining the *in vivo* EPO activity of a sample containing EPO. More particularly, the present method comprises treating a sample containing EPO under conditions which remove desialylated EPO, and measuring the *in vitro* EPO activity of the resulting treated sample. In a preferred embodiment, desialylated EPO is removed from the sample by incubating the sample with cells of the human hepatoma cell line HepG2, and *in vitro* EPO activity is determined by incubating the treated sample with cells of an EPO-responsive cell line and measuring the proliferation or viability of the EPO-responsive cells. The present invention is useful, for example, in quantitating the biologically active EPO in a variety of sample types.