

GENETICALLY MODIFIED NON-HUMAN ANIMALS EXPRESSING HUMAN EPO

ABSTRACT

Genetically modified non-human animals expressing human EPO from the animal genome are provided. Also provided are methods for making non-human animals expressing human EPO from the non-human animal genome, and methods for using non-human animals expressing human EPO from the non-human animal genome. These animals and methods find many uses in the art, including, for example, in modeling human erythropoiesis and erythrocyte function; in modeling human pathogen infection of erythrocytes; in in vivo screens for agents that modulate erythropoiesis and/or erythrocyte function, e.g. in a healthy or a diseased state; in in vivo screens for agents that are toxic to erythrocytes or erythrocyte progenitors; in in vivo screens for agents that prevent against, mitigate, or reverse the toxic effects of toxic agents on erythrocytes or erythrocyte progenitors; in in vivo screens of erythrocytes or erythrocyte progenitors from an individual to predict the responsiveness of an individual to a disease therapy.

[Figure No. 2]