**BACKGROUND**

Erythropoietin, or Epo, is the primary factor responsible for regulating erythropoiesis during steady-state conditions and in response to blood loss and hemorrhage in the adult organism. In addition, Epo has been shown to play a role in primitive embryonic erythropoiesis. It is synthesized by the kidney and stimulates the proliferation and maturation of bone marrow erythroid precursor cells. Circulating Epo is a 165 amino acid glycoprotein. The Epo receptor, EpoR, is a glycoprotein expressed on megakaryocytes, erythroid progenitors and endothelial cells. Overexpression of Epo is associated with several pathophysiological conditions, such as polycythemia vera, which is caused by the Epo-independent growth of erythrocytic progenitors from abnormal stem cells. A deficiency in Epo expression has been associated with afflictions such as anemia of chronic disease (ACD), frequently found in rheumatoid arthritis (RA) patients.

**CHROMOSOMAL LOCATION**

Genetic locus: EPO (human) mapping to 7q22.1; Epo (mouse) mapping to 5 G2.

**SOURCE**

Epo (B-4) is a mouse monoclonal antibody raised against amino acids 28-189 of mature erythropoietin (Epo) of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Epo (B-4) is available conjugated to agarose (sc-5290 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-5290 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-5290 PE), fluorescein (sc-5290 FITC), Alexa Fluor® 488 (sc-5290 AF488), Alexa Fluor® 546 (sc-5290 AF546), Alexa Fluor® 594 (sc-5290 AF594) or Alexa Fluor® 647 (sc-5290 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-5290 AF680) or Alexa Fluor® 790 (sc-5290 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

Epo (B-4) is recommended for detection of Epo of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1:2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of Epo: 37 kDa.

Positive Controls: mouse liver extract: sc-2256.

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.