Human Erythropoietin R Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF-322-PB

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Erythropoietin R in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with rhEpo and rhTpo is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Erythropoietin R Pro26-Pro250 Accession # P19235
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

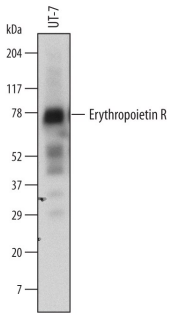
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Simple Western	10 µg/mL	See Below

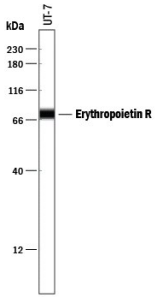
DATA

Western Blot



Detection of Human Erythropoietin R by Western Blot. Western blot shows lysates of UT-7 human acute myeloid leukemia cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human Erythropoietin R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-322-PB) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). Specific bands were detected for Erythropoietin R at approximately 70-78 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Human Erythropoietin R by Simple Western™. Simple Western lane view shows lysates of UT-7 human acute myeloid leukemia cell line, loaded at 0.2 mg/mL. A specific band was detected for Erythropoietin R at approximately 76 kDa (as indicated) using 10 µg/mL of Goat Anti-Human Erythropoietin R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-322-PB) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Erythropoietin (Epo), a glycoprotein produced primarily by the kidney, is the principal factor that regulates erythropoiesis by stimulating the proliferation and differentiation of erythroid progenitor cells. The biological effects of Epo are mediated by the erythropoietin receptor (Epo R). The genes for human and mouse Epo R have been cloned and characterized. The full-length human Epo R cDNA encodes a type I membrane-spanning protein with 508 amino acid (aa) residues (a 24 aa residue hydrophobic signal sequence, a 226 aa residue extracellular domain, a 22 aa residue transmembrane domain and a 236 aa residue cytoplasmic domain). At the protein sequence level, the human Epo R is approximately 82% identical to the mouse protein. As a result of alternative splicing of the Epo R gene, cDNA clones encoding a truncated form of the Epo R as well as the soluble form of Epo R has been found. The presence of a soluble form of the Epo R has also been detected on human sera. Recombinant soluble Epo R binds Epo with high affinity and is a potent Epo antagonist.

References:

1. Barber, D.L. and A.D. D'Andrea (1992) Seminars in Hematology **29**:293.
2. Youssoufian, H. *et al.* (1993) Blood **9**:2223.
3. Lodish, H.F. *et al.* (1995) Cold Spring Harbor Symposia on Quantitative Biology **LX**:93.
4. Baynes, R.D. *et al.* (1993) Blood **82**:2088.

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