

EpoR (C-20): sc-695

BACKGROUND

Erythropoiesis is regulated through the interaction of erythropoietin (Epo) with its receptor, EpoR, a member of the cytokine superfamily of receptors. The human EpoR is a 507 amino acid transmembrane protein that forms homodimers following erythropoietin activation and is related to the interleukin 2 (IL-2) receptor β -chain subunit (IL-2R β). EpoR and IL-2R β share 45% amino acid identity within the box 1 and box 2 domains of their cytoplasmic regions while their remaining cytoplasmic sequences are highly divergent. These conserved domains are both required and sufficient for mitogenesis and for coupling ligand binding to the induction of tyrosine phosphorylation. The membrane proximal region is also required for the association of JAK2 with EpoR. The existence of multiple cross-linked complexes and differential ligand affinities suggests that EpoR may exist as a multireceptor complex.

CHROMOSOMAL LOCATION

Genetic locus: EPOR (human) mapping to 19p13.2.

SOURCE

EpoR (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of EpoR of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-695 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EpoR (C-20) is recommended for detection of erythropoietin (Epo) receptor of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with HSP70.

EpoR (C-20) is also recommended for detection of erythropoietin (Epo) receptor in additional species, including canine and bovine.

Suitable for use as control antibody for EpoR siRNA (h): sc-37092, EpoR shRNA Plasmid (h): sc-37092-SH and EpoR shRNA (h) Lentiviral Particles: sc-37092-V.

Molecular Weight of EpoR: 66/78 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, TF-1 cell lysate: sc-2412 or Jurkat whole cell lysate: sc-2204.

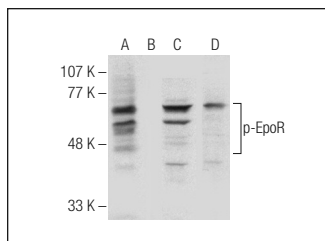
STORAGE

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

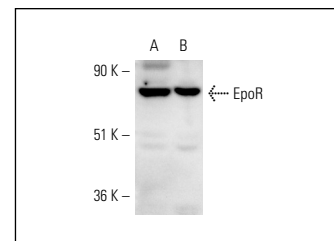
RESEARCH USE

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

DATA



Western blot analysis of EpoR phosphorylation in untreated (A, C) and lambda protein phosphatase (sc-200312A) treated (B, D) TF-1 whole cell lysates. Antibodies tested include p-EpoR (Tyr 456)-R: sc-20236-R (A, B) and EpoR (C-20): sc-695 (C, D).



EpoR (C-20): sc-695. Western blot analysis of EpoR expression in K-562 (A) and Jurkat (B) whole cell lysates.

SELECT PRODUCT CITATIONS

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Try **EpoR (D-5): sc-3656622**, our highly recommended monoclonal alternative to EpoR (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **EpoR (D-5): sc-365662**.