

Purified anti-EPO Antibody

Catalog# / Size	662202 / 100 µg
Clone	M0312E3
Regulatory Status	RUO
Other Names	Erythropoietin, MVCD2, EP, Epoetin
Isotype	Mouse IgG2b, κ
Description	EPO is the major regulator of differentiation, proliferation, and survival of erythroid progenitors. Hypoxia induces erythropoiesis which causes cells to produce hypoxia inducible factor (HIF) that is directly involved in EPO expression. HIF-Prolyl hydroxylase (HIF-PH) is a sensor of levels of iron, oxygen, and metabolic activity. High levels of HIF protein induce EPO production in the kidneys and liver, and mobilize iron to support erythropoiesis. EPO has been used in the treatment of anemia associated with a number of conditions, such as chronic kidney disease, cancer patients on chemotherapy, and antiviral HIV therapy.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Recombinant human EPO
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	IP - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunoprecipitation . This antibody can be used at 1 - 5 µg/mL for immunoprecipitation. It is recommended that the reagent be titrated for optimal performance for each application.
RRID	AB_2564245 (BioLegend Cat. No. 662202)

Antigen Details

Structure	165 amino acid protein with a predicted molecular weight of approximately 18 kD. It migrates at approximately 37-57 kD as a result of its glycosylation.
Distribution	EPO is primarily expressed in kidney (70-90% of the total EPO) and liver cells. EPO is expressed by hepatocytes, cortical interstitial fibroblasts in ischemic kidneys, astrocytes, and neurons under hypoxic conditions.
Function	EPO is the major regulator of differentiation, proliferation, and survival of erythroid progenitors. EPO expression is induced by hypoxia, HIF, and other transcription factors. EPO also plays a role in neuroprotection.
Interaction	Erythroid progenitor cells
Ligand/Receptor	EpoR (homodimer)
Cell Type	Fibroblasts, Neurons

Biology Area Cell Biology, Signal Transduction

Molecular Family Cytokines/Chemokines

Antigen References

1. Shoemaker CB, *et al.* 1986. *Mol. Cell. Biol.* 6:849.
2. McDonald JD, *et al.* 1986. *Mol. Cell. Biol.* 6:842.
3. Chin K, *et al.* 2000. *Brain Res. Mol. Brain Res.* 81:29.
4. Snow JW, *et al.* 2009. *J. Biol. Chem.* 284:29310.
5. Kassouf MT, *et al.* 2010. *Genome Res.* 2010:20:1064.
6. Paliege A, *et al.* 2010. *Kidney Int.* 77:312.
7. Sinclair AM, *et al.* 2010. *Blood* 115:4264.
8. Alnaeeli M, *et al.* 2012. *Anat. Res. Int.* 2012:953264.

Gene ID [2056](#)

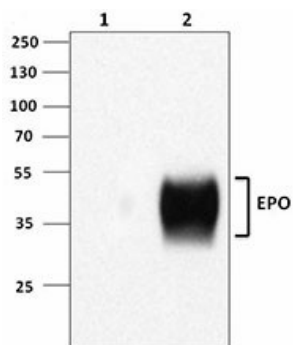
Related Protocols

[Immunoprecipitation Protocol](#)

Other Formats

Purified anti-EPO

Product Data



Immunoprecipitation/Western blot analysis using EPO antibody (M0312E3). 100 ng of recombinant human EPO (Cat No. 587106) was tested in 1 ml of immunoprecipitation lysis buffer. Lane 1 was immunoprecipitated with mouse IgG control antibody and lane 2 was immunoprecipitated with EPO antibody (M0312E3). Western blot analysis was performed using goat polyclonal anti-EPO antibody generated in house.

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