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EPOR Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant EPOR.
Catalog # AT1931a

Product Information

Application	WB, IP, E
Primary Accession	P19235
Other Accession	NM_000121
Reactivity	Human
Host	Mouse
Clonality	monoclonal
Isotype	IgG2b Kappa
Clone Names	3D10
Calculated MW	55065

Additional Information

Gene ID	2057
Other Names	Erythropoietin receptor, EPO-R, EPOR
Target/Specificity	EPOR (NP_000112, 31 a.a. ~ 130 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IP~~N/A E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	EPOR Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

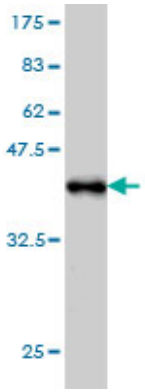
This gene encodes the erythropoietin receptor which is a member of the cytokine receptor family. Upon erythropoietin binding, this receptor activates Jak2 tyrosine kinase which activates different intracellular pathways including: Ras/MAP kinase, phosphatidylinositol 3-kinase and STAT transcription factors. The stimulated erythropoietin receptor appears to have a role in erythroid cell survival. Defects in the erythropoietin receptor may produce erythroleukemia and familial erythrocytosis. Dysregulation of this gene may affect the growth of certain tumors. Alternate splicing results in multiple transcript variants.

References

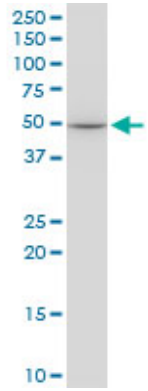
A diversity of antibody epitopes can induce signaling through the erythropoietin receptor. Lim AC, et al.

Biochemistry, 2010 May 11. PMID 20337434.STAT3 and hypoxia induced proteins--HIF-1alpha, EPO and EPOR in relation with Bax and Bcl-xL in nodal metastases of ductal breast cancers. Wincewicz A, et al. Folia Histochem Cytobiol, 2009 Jan. PMID 20164027.Absence of functional EpoR expression in human tumor cell lines. Swift S, et al. Blood, 2010 May 27. PMID 20124514.Functional erythropoietin receptor is undetectable in endothelial, cardiac, neuronal, and renal cells. Sinclair AM, et al. Blood, 2010 May 27. PMID 20124513.Induction of nitric oxide by erythropoietin is mediated by the {beta} common receptor and requires interaction with VEGF receptor 2. Sautina L, et al. Blood, 2010 Jan 28. PMID 19965681.

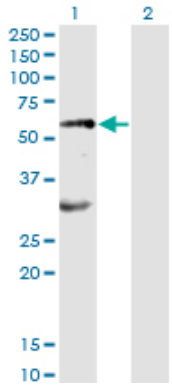
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (36.74 KDa) .



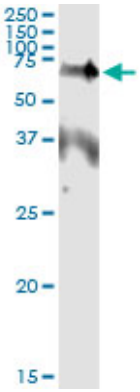
EPOR monoclonal antibody (M01), clone 3D10. Western Blot analysis of EPOR expression in HeLa.

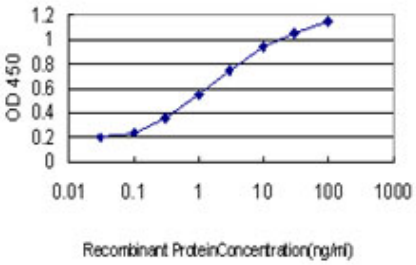


Western Blot analysis of EPOR expression in transfected 293T cell line by EPOR monoclonal antibody (M01), clone 3D10.

Lane 1: EPOR transfected lysate (Predicted MW: 55.1 KDa).
Lane 2: Non-transfected lysate.

Immunoprecipitation of EPOR transfected lysate using anti-EPOR monoclonal antibody and Protein A Magnetic Bead (U0007), and immunoblotted with EPOR MaxPab rabbit polyclonal antibody.





Detection limit for recombinant GST tagged EPOR is approximately 0.03ng/ml as a capture antibody.

Citations

- Methylation of the first exon in the erythropoietin receptor gene does not correlate with its mRNA and protein level in cancer cells.