Datasheet for ABIN5693048

anti-EPO antibody (AA 34-192)

1 Image

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Overview

Quantity:	100 µg
Target:	EPO
Binding Specificity:	AA 34-192
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This EPO antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Purpose:	Anti-EPO Antibody Picoband®
Immunogen:	E. coli-derived mouse EPO recombinant protein (Position: D34-R192).
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins.
Characteristics:	Anti-EPO Antibody Picoband® (ABIN5693048). Tested in WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.

Target Details

Target:	EPO
Alternative Name:	Epo (EPO Products)
Target Type:	Hormone
Background:	Synonyms: Erythropoietin, Epo Tissue Specificity: Produced by kidney or liver of adult mammals and by liver of fetal or neonatal mammals. Background: This EPO gene encodes a secreted, glycosylated cytokine composed of four alpha helical bundles. The encoded protein is mainly synthesized in the kidney, secreted into the blood plasma, and binds to the erythropoietin receptor to promote red blood cell production, or erythropoiesis, in the bone marrow. Expression of this gene is upregulated under hypoxic conditions, in turn leading to increased erythropoiesis and enhanced oxygen-carrying capacity of the blood. Expression of this gene has also been observed in brain and in the eye, and elevated expression levels have been observed in diabetic retinopathy and ocular hypertension. Recombinant forms of the encoded protein exhibit neuroprotective activity against a variety of potential brain injuries, as well as antiapoptotic functions in several tissue types, and have been used in the treatment of anemia and to enhance the efficacy of cancer therapies.
Molecular Weight:	28 kDa
Gene ID:	13856
UniProt:	P07321
Pathways:	JAK-STAT Signaling, Hormone Activity, Negative Regulation of intrinsic apoptotic Signaling, Negative Regulation of Transporter Activity

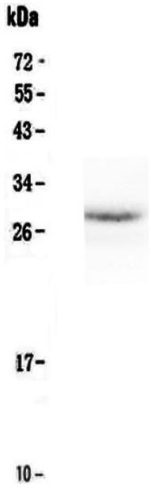
Application Details

Application Notes:	Western blot, 0.1-0.5 µg/mL 1. Hosseini-Zare MS, Dashti-Khavidaki S, Mahdavi-Mazdeh M, Ahmadi F, Akrami S (2012). "Peripheral neuropathy response to erythropoietin in type 2 diabetic patients with mild to moderate renal failure". Clinical Neurology and Neurosurgery. 114 (6): 663-7. 2. Middleton SA, Barbone FP, Johnson DL, Thurmond RL, You Y, McMahon FJ, Jin R, Livnah O, Tullai J, Farrell FX, Goldsmith MA, Wilson IA, Jolliffe LK (1999). "Shared and unique determinants of the erythropoietin (EPO) receptor are important for binding EPO and EPO mimetic peptide". The Journal of Biological Chemistry. 274 (20): 14163-9.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na_2HPO_4, 0.05 mg NaN_3.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

Images



Western Blotting

Image 1. Western blot analysis of EPO using anti-EPO antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: mouse small intestine tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-EPO antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for EPO at approximately 28KD. The expected band size for EPO is at 21KD.