Datasheet for ABIN5541451

anti-BLVRB antibody

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Overview

Quantity:	0.1 mg
Target:	BLVRB
Reactivity:	Human, Rat, Monkey
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This BLVRB antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Immunogen:	Recombinant full-length human NADPH-Flavin reductase
Clone:	2C10
Isotype:	IgG1
Specificity:	This antibody reacts with FLR.
Purification:	Protein A agarose

Target Details

Target:	BLVRB
Alternative Name:	flavin reductase (BLVRB Products)
Background:	Methemoglobinemia is a blood disease originated from oxidization of hemoglobin-iron ions (Fe(II) → *Fe(III)). Oxidized hemoglobin (methemoglobin) which can not carry oxygen, is*

Target Details

	rereduced by enzyme named methemoglobin reductase or administrated flavin or methylene blue. NADPH-flavin reductase (FLR) is a 21 kDa protein that catalyzes electron transfer fr om mainly NADPH to flavins (FMN, FAD) and a variety of other electron acceptors including methylene blue, 2,6-dichlorophenolindophenol (DCIP), and pyrroloquinoline quinone (PQQ). FLR was originally identified as a candidate of NADPH dependent methemoglobin reductase. However it was found that, though this enzyme reduces methemoglobin through reducing flavin or methylene blue, it does not reduce methemoglobin directly under physiological conditions. It was also reported that human FLR is identical with human biliverdin-IX β -reductase (BLVR-B) which participate in hem catabolism. Hem, which is a component of hemoglobin is metabolized to a biliverdin by hemoxygenase. Biliverdin-IX β , which is one of isomers of biliverdin is then reduced to bilirubin-IX β by BLVR-B. Though physiological functions for FLR have not been clear, one of the important functions may be the reduction of biliverdin-IX β.
UniProt:	P30043

Application Details

Application Notes:	Western blot: 1 µg/mL for chemiluminescence detection system. For details see protocol below.
Protocol:	1) Wash the 1x10e7 cells 3 times with PBS and suspend with 1 mL of Laemmli's sample buffer. 2) Boil the samples for 2 minutes and centrifuge. Load 20 µ L of the sample per lane in a 1 mm thick SDS-polyacrylamide gel for electrophoresis. 3) Blot the protein to a polyvinylidene difluoride (PVDF) membrane at 1 mA/cm 2 for 1 hour in a semi-dry transfer system (Transfer Buffer: 25 mM Tris, 190 mM glycine, 20 % MeOH). See the manufacture's manual for precise transfer procedure. 4) To reduce nonspecific binding, soak the membrane in 5 % skimmed milk (in PBS, pH 7.2) for 1 hour at room temperature, or overnight at 4 o C. 5) Incubate the membrane with primary antibody diluted with PBS, pH 7.2 containing 1 % skimmed milk as suggest in the APPLICATIONS for 1 hour at room temperature. (The concentration of antibody will depend on condition.) 6) Wash the membrane with PBS-T [0.05 % Tween-20 in PBS] (5 minutes x 3 times). 7) Incubate the membrane with the 1:10,000 HRP-conjugated anti-mouse IgG diluted with 1 % skimmed milk (in PBS, pH 7.2) for 1 hour at room temperature. 8) Wash the membrane with PBS-T (5 minutes x 3 times). 9) Wipe excess buffer on the membrane, then incubate it with appropriate chemilumin escence reagent for 1 minute. Remove extra reagent from the membrane by dabbing with paper towel, and seal it in plastic wrap. 10) Expose to an X-ray film in a dark room for 10 minutes. Develop the film as usual. The condition for exposure and development may vary. (Positive controls for Western blotting Raji, HeLa, MRC-5, ZR-75-1,

Application Details

	U937, Ba/F3)
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	PBS (pH 7.2)/1 % sucrose. No preservative is contained.
Preservative:	Azide free
Storage:	-20 °C
Storage Comment:	Upon receipt, store undiluted (in aliquots) at -20°C. Avoid repeated freezing and thawing. Shelf life: One year from despatch.