

**BLVRB Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP20628c**

## Specification

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### BLVRB Antibody (C-term) - Product Information

Application	WB,E
Primary Accession	<a href="#">P30043</a>
Other Accession	<a href="#">O923D2</a> , <a href="#">P52556</a>
Reactivity	Human, Mouse
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

### BLVRB Antibody (C-term) - Additional Information

**Gene ID** 645

#### Other Names

Flavin reductase (NADPH), FR, Biliverdin reductase B, BVR-B, Biliverdin-IX beta-reductase, Green heme-binding protein, GHBP, NADPH-dependent diaphorase, NADPH-flavin reductase, FLR, BLVRB, FLR

#### Target/Specificity

This BLVRB antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 161-175 amino acids from the C-terminal region of human BLVRB.

#### Dilution

WB~~1:2000

#### Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

BLVRB Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### BLVRB Antibody (C-term) - Protein Information

**Name** BLVRB ([HGNC:1063](#))

**Function** Enzyme that can both act as a NAD(P)H-dependent reductase and a

S-nitroso-CoA-dependent nitrosyltransferase (PubMed:[10620517](#), PubMed:[18241201](#), PubMed:[27207795](#), PubMed:[38056462](#), PubMed:[7929092](#)). Promotes fetal heme degradation during development (PubMed:[10858451](#), PubMed:[18241201](#), PubMed:[7929092](#)). Also expressed in adult tissues, where it acts as a regulator of hematopoiesis, intermediary metabolism (glutaminolysis, glycolysis, TCA cycle and pentose phosphate pathway) and insulin signaling (PubMed:[27207795](#), PubMed:[29500232](#), PubMed:[38056462](#)). Has a broad specificity oxidoreductase activity by catalyzing the NAD(P)H-dependent reduction of a variety of flavins, such as riboflavin, FAD or FMN, biliverdins, methemoglobin and PQQ (pyrroloquinoline quinone) (PubMed:[10620517](#), PubMed:[18241201](#), PubMed:[7929092](#)). Contributes to fetal heme catabolism by catalyzing reduction of biliverdin IXbeta into bilirubin IXbeta in the liver (PubMed:[10858451](#), PubMed:[18241201](#), PubMed:[7929092](#)). Biliverdin IXbeta, which constitutes the major heme catabolite in the fetus is not present in adult (PubMed:[10858451](#), PubMed:[18241201](#), PubMed:[7929092](#)). Does not reduce bilirubin IXalpha (PubMed:[10858451](#), PubMed:[18241201](#), PubMed:[7929092](#)). Can also reduce the complexed Fe(3+) iron to Fe(2+) in the presence of FMN and NADPH (PubMed:[10620517](#)). Acts as a protein nitrosyltransferase by catalyzing nitrosylation of cysteine residues of target proteins, such as HMOX2, INSR and IRS1 (PubMed:[38056462](#)). S-nitroso-CoA-dependent nitrosyltransferase activity is mediated via 'ping-pong' mechanism: BLVRB first associates with both S-nitroso-CoA and protein substrate, nitric oxide group is then transferred from S-nitroso-CoA to Cys-109 and Cys-188 residues of BLVRB and from S-nitroso-BLVRB to the protein substrate (PubMed:[38056462](#)). Inhibits insulin signaling by mediating nitrosylation of INSR and IRS1, leading to their inhibition (PubMed:[38056462](#)).

#### **Cellular Location**

Cytoplasm

#### **Tissue Location**

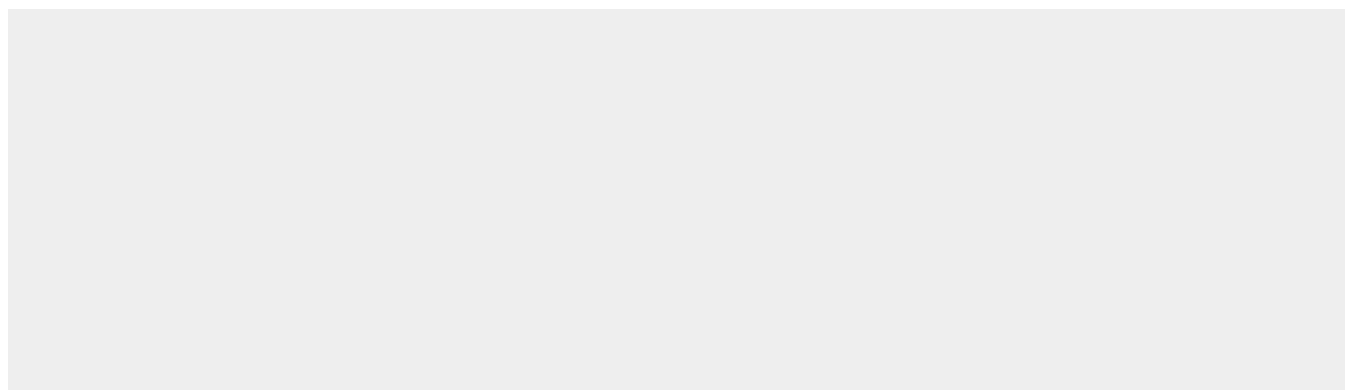
Predominantly expressed in liver and erythrocytes (PubMed:[7929092](#)). At lower levels in heart, lung, adrenal gland and cerebrum (PubMed:[7929092](#)). Expressed in adult red blood cells (PubMed:[29932944](#)).

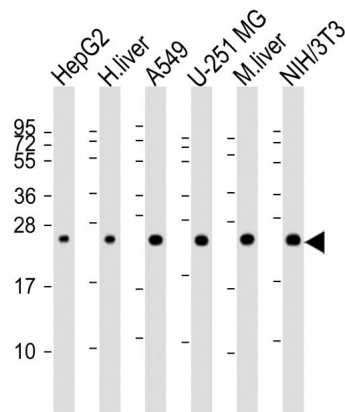
#### **BLVRB Antibody (C-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **BLVRB Antibody (C-term) - Images**





All lanes : Anti-BLVRB Antibody (C-term) at 1:2000 dilution Lane 1: HepG2 whole cell lysate Lane 2: human liver lysate Lane 3: A549 whole cell lysate Lane 4: U-251 MG whole cell lysate Lane 5: mouse liver lysate Lane 6: NIH/3T3 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 22 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

#### **BLVRB Antibody (C-term) - Background**

Broad specificity oxidoreductase that catalyzes the NADPH-dependent reduction of a variety of flavins, such as riboflavin, FAD or FMN, biliverdins, methemoglobin and PQQ (pyrroloquinoline quinone). Contributes to heme catabolism and metabolizes linear tetrapyrroles. Can also reduce the complexed Fe(3+) iron to Fe(2+) in the presence of FMN and NADPH. In the liver, converts biliverdin to bilirubin.

#### **BLVRB Antibody (C-term) - References**

- Chikuba K.,et al.Biochem. Biophys. Res. Commun. 198:1170-1176(1994).
- Komuro A.,et al.Biol. Pharm. Bull. 19:796-804(1996).
- Ota T.,et al.Nat. Genet. 36:40-45(2004).
- Grimwood J.,et al.Nature 428:529-535(2004).
- Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.