

**BLVRB Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AW5035**

**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
Calculated MW	22119 Da
Isotype	Rabbit IgG
Antigen Source	HUMAN

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

**Gene ID** 645

**Antigen Region**  
161-175

**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

**Dilution**

WB~~1:1000

**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.

**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](http://www.uniprot.org/citations/10620517) target="\_blank">10620517</a>, PubMed:[18241201](http://www.uniprot.org/citations/18241201) target="\_blank">18241201</a>, PubMed:[27207795](http://www.uniprot.org/citations/27207795) target="\_blank">27207795</a>, PubMed:[38056462](http://www.uniprot.org/citations/38056462) target="\_blank">38056462</a>, PubMed:[7929092](http://www.uniprot.org/citations/7929092) target="\_blank">7929092</a>). Promotes fetal heme degradation during development (PubMed:[10858451](http://www.uniprot.org/citations/10858451) target="\_blank">10858451</a>, PubMed:[18241201](http://www.uniprot.org/citations/18241201) target="\_blank">18241201</a>, PubMed:[7929092](http://www.uniprot.org/citations/7929092) target="\_blank">7929092</a>). 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](http://www.uniprot.org/citations/27207795) target="\_blank">27207795</a>, PubMed:[29500232](http://www.uniprot.org/citations/29500232) target="\_blank">29500232</a>, PubMed:[38056462](http://www.uniprot.org/citations/38056462) target="\_blank">38056462</a>). 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](http://www.uniprot.org/citations/10620517) target="\_blank">10620517</a>, PubMed:[18241201](http://www.uniprot.org/citations/18241201) target="\_blank">18241201</a>, PubMed:[7929092](http://www.uniprot.org/citations/7929092) target="\_blank">7929092</a>). Contributes to fetal heme catabolism by catalyzing reduction of biliverdin IXbeta into bilirubin IXbeta in the liver (PubMed:[10858451](http://www.uniprot.org/citations/10858451) target="\_blank">10858451</a>, PubMed:[18241201](http://www.uniprot.org/citations/18241201) target="\_blank">18241201</a>, PubMed:[7929092](http://www.uniprot.org/citations/7929092) target="\_blank">7929092</a>). Biliverdin IXbeta, which constitutes the major heme catabolite in the fetus is not present in adult (PubMed:[10858451](http://www.uniprot.org/citations/10858451) target="\_blank">10858451</a>, PubMed:[18241201](http://www.uniprot.org/citations/18241201) target="\_blank">18241201</a>, PubMed:[7929092](http://www.uniprot.org/citations/7929092) target="\_blank">7929092</a>). Does not reduce bilirubin IXalpha (PubMed:[10858451](http://www.uniprot.org/citations/10858451) target="\_blank">10858451</a>, PubMed:[18241201](http://www.uniprot.org/citations/18241201) target="\_blank">18241201</a>, PubMed:[7929092](http://www.uniprot.org/citations/7929092) target="\_blank">7929092</a>). Can also reduce the complexed Fe(3+) iron to Fe(2+) in the presence of FMN and NADPH (PubMed:[10620517](http://www.uniprot.org/citations/10620517) target="\_blank">10620517</a>). Acts as a protein nitrosyltransferase by catalyzing nitrosylation of cysteine residues of target proteins, such as HMOX2, INSR and IRS1 (PubMed:[38056462](http://www.uniprot.org/citations/38056462) target="\_blank">38056462</a>). 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](http://www.uniprot.org/citations/38056462) target="\_blank">38056462</a>). Inhibits insulin signaling by mediating nitrosylation of INSR and IRS1, leading to their inhibition (PubMed:[38056462](http://www.uniprot.org/citations/38056462) target="\_blank">38056462</a>).

**Cellular Location**

Cytoplasm

**Tissue Location**

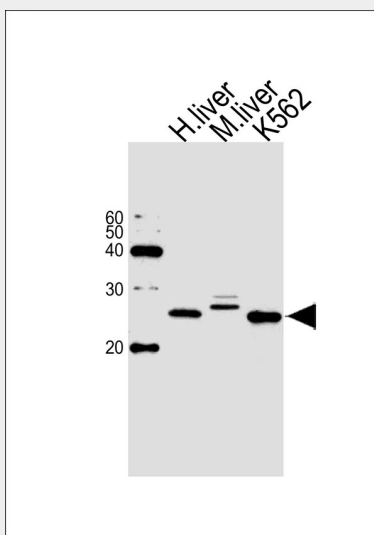
Predominantly expressed in liver and erythrocytes (PubMed:7929092). At lower levels in heart, lung, adrenal gland and cerebrum (PubMed:7929092). Expressed in adult red blood cells (PubMed:29932944).

## 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



Western blot analysis of lysates from human liver, mouse liver tissue and K562 cell line (from left to right), using BLVRB Antibody (C-term)(Cat. #AW5035). AW5035 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.

## 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.