

## Rabbit BLVRB Polyclonal Antibody | anti-BLVRB antibody

BLVRB Antibody (C-term)

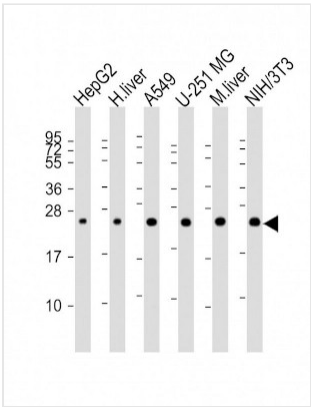
|                               |                       |                                                                  |                                            |
|-------------------------------|-----------------------|------------------------------------------------------------------|--------------------------------------------|
| CATALOG #<br><b>AAA290084</b> | HOST<br><b>Rabbit</b> | REACTIVITY<br><b>Human, mouse (Predicted Reactivity: Bovine)</b> | APPLICATIONS<br><b>ELISA, Western Blot</b> |
|-------------------------------|-----------------------|------------------------------------------------------------------|--------------------------------------------|

### PRODUCT SYNONYMS

BLVRB; Polyclonal Antibody; BLVRB Antibody (C-term); 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; anti-BLVRB antibody

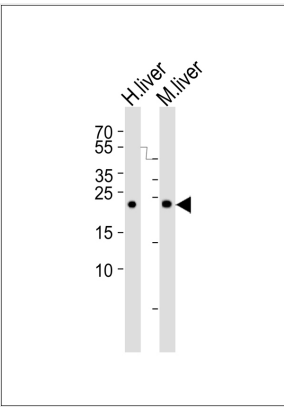
### PRODUCT SPECIFICATIONS

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Reactivity                                      | Human, mouse (Predicted Reactivity: Bovine)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Clonality                                       | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Isotype                                         | Rabbit IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Purity/Purification                             | This antibody is purified through a protein A column, followed by peptide affinity purification.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Form/Format                                     | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Sequence Length                                 | 206                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Applicable Applications for anti-BLVRB antibody | ELISA, WB (Western Blot)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 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 a '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).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Preparation and Storage                         | Maintain refrigerated at 2-8 degree C for up to 2 weeks.<br>For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |



WB (Western Blot)

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 ug 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.



WB (Western Blot)

Western blot analysis of lysates from human liver and mouse liver tissue lysate (from left to right), using BLVRB Antibody (C-term). AAA290084 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

ADDITIONAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-BLVRB antibody | 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. |
| Product Categories/Family for anti-BLVRB antibody   | Crown Antibodies; Metabolism; Signal Transduction                                                                                                                                                                                                                                                                                                                                                                |
| References                                          | Chikuba K.,et al.Biochem. Biophys. Res. Commun. 198:1170-1176(1994).<br>Komuro A.,et al.Biol. Pharm. Bull. 19:796-804(1996).<br>Ota T.,et al.Nat. Genet. 36:40-45(2004).<br>Grimwood J.,et al.Nature 428:529-535(2004).<br>Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.                                                                                                             |

NCBI AND UNIPROT INFORMATION

|                                  |                              |
|----------------------------------|------------------------------|
| NCBI GI #                        | 4502419                      |
| NCBI GeneID                      | 645                          |
| NCBI Accession #                 | NP_000704.1                  |
| NCBI GenBank Nucleotide #        | NM_000713.2                  |
| UniProt Accession #              | P30043; Q923D2; P52556       |
| Molecular Weight                 | 22119                        |
| NCBI Official Full Name          | flavin reductase (NADPH)     |
| NCBI Official Synonym Full Names | biliverdin reductase B       |
| NCBI Official Symbol             | BLVRB                        |
| NCBI Official Synonym Symbols    | FLR; BVRB; SDR43U1; HEL-S-10 |
| NCBI Protein Information         | flavin reductase (NADPH)     |
| UniProt Protein Name             | Flavin reductase (NADPH)     |
| UniProt Gene Name                | BLVRB                        |

|                            |                           |
|----------------------------|---------------------------|
| UniProt Synonym Gene Names | FLR; FR; BVR-B; GHBP; FLR |
| UniProt Entry Name         | BLVRB_HUMAN               |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/blvr-b-antibody-western-blot-elisa/290084>