

**DESCRIPTION**

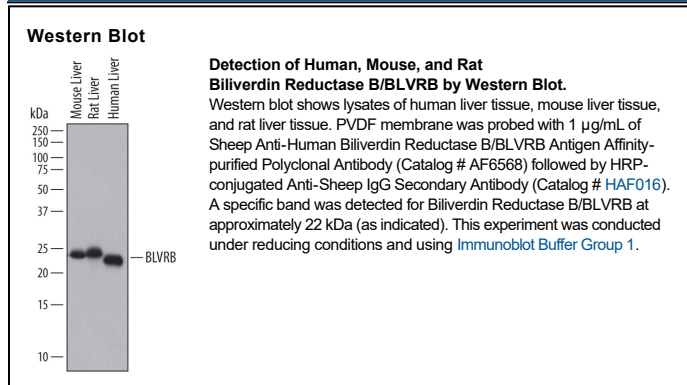
<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human, mouse, and rat Biliverdin Reductase B/BLVRB in Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Biliverdin Reductase B/BLVRB Ala2-Gln206, predicted Accession # P30043
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below

**DATA**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

Clearance of heme in mammals is a two-step process starting with conversion of heme to biliverdin by heme oxygenase, followed by reduction of biliverdin to bilirubin by biliverdin reductase. Biliverdin IX b reductase (BLVRB) converts the β isomer of biliverdin IX to bilirubin IX b, which constitutes 87% of total bilirubin in fetal bile. Therefore BLVRB is especially important for fetal heme metabolism and clearance (1). BLVRB is a cytoplasmic enzyme expressed at high levels in erythrocytes and liver, but is present in other tissues (2). The enzyme is identical to flavin reductase, which is an oxidoreductase that catalyses the NADPH-dependent reduction for a variety of flavins, such as riboflavin, FAD or FMN and met-hemoglobin (3, 4). BLVRB is structurally distinct from BLVRA. In contrast to BLVRA, which prefers the biliverdin α isomer but could also use the β isomer as substrate, BLVRB is specific for the β isomer (5, 6).

**References:**

1. Pereira, P.J. *et al.* (2001) *Nat. Struct. Biol.* **8**:215.
2. Chikuba, K. *et al.* (1994) *Biochem. Biophys. Res. Commun.* **198**:1170.
3. Shalloe, F. *et al.* (1996) *Biochem. J.* **316**:385.
4. Cunningham, O. *et al.* (2000) *Biochem. J.* **345**:393.
5. Yamaguchi, T. *et al.* (1994) *J. Biol. Chem.* **269**:24343.
6. Cunningham, O. *et al.* (2000) *J. Biol. Chem.* **275**:19009.