

Product Information

Anti-Biliverdin Reductase A

produced in rabbit, IgG fraction of antiserum

Catalog Number **B8437**

Product Description

Anti-Biliverdin Reductase A is produced in rabbit using as immunogen human Biliverdin Reductase A recombinant protein (GenID: 644). Whole serum is purified using protein A immobilized on agarose to provide the IgG fraction of antiserum.

Anti-Biliverdin Reductase A recognizes human Biliverdin Reductase A. The antibody may be used in various immunochemical techniques including immunoblotting (~ 35 kDa) and immunoprecipitation. Detection of the Biliverdin Reductase A band by immunoblotting is specifically inhibited by the immunizing protein.

Biliverdin Reductase A (BVR, BLVRA) catalyzes the conversion of biliverdin to bilirubin in the presence of NADPH or NADH.¹⁻² Biliverdin reductase A is also known to contain a domain that acts as a serine/ threonine/ tyrosine kinase, which belongs to the insulin receptor substrate family. Whereas most tyrosine kinase activity is membrane bound, BVR is a soluble protein.³ Biliverdin reductase A is also considered a major physiologic cytoprotectant and may have other protective properties for disease states. It has been shown to suppress experimental autoimmune encephalomyelitis in rats.⁴ Depletion of the enzyme in the cell leads to accumulation of cellular oxidants and augmented cell death.⁵

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -20 °C. For continuous use, the product may be stored at 2-8 °C for up to one month. For extended storage, freeze at -20 °C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working antibody dilution of 1:250-1:500 is recommended using whole extracts of human HepG2 cells.

Immunoprecipitation: a working antibody amount of 5-10 µL is recommended using human HeLa cell lysates.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

1. Singleton, J.W., and Laster L., *J. Biol. Chem.*, **240**, 4780-4789 (1965).
2. Kutty, R.K., and Maines, M.D., *J. Biol. Chem.*, **256**, 3956-3962 (1981).
3. Maines, M.D., *Physiol.*, **20**, 382-389 (2005).
4. Liu, Y., et al., *Free Rad. Biol. Med.*, **40**, 960-967 (2006).
5. Kirkby, K.A., and Adin, C.A., *Am. J. Physiol. Renal Physiol.*, **290**, F563-F571 (2006).

EB,ST,TD,KAA,PHC 06/09-1