



HemogloBind™

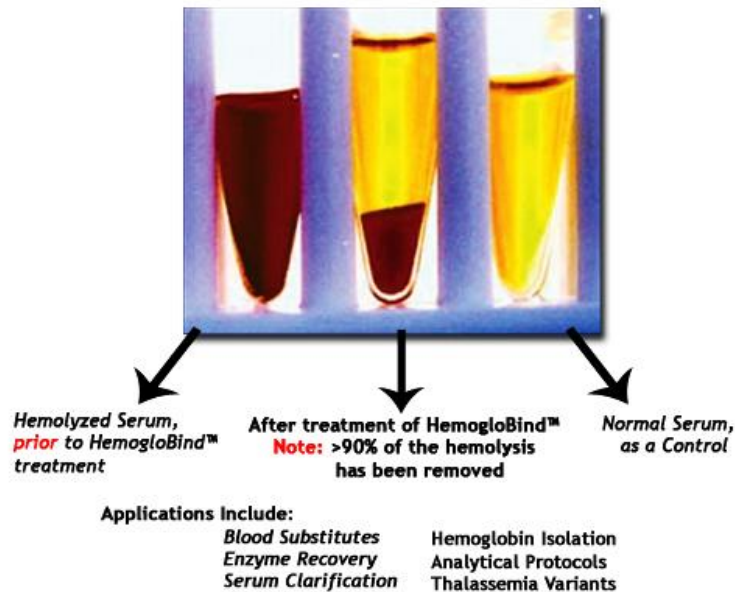
HemogloBind™ Hemoglobin Removal and Capture

- Has a high degree of specificity for hemoglobin
- Suitable for serum/plasma or red cell lysates without cross-reacting with other analytes^{1,3,4}
- Distinguishes between hemoglobin variants
- Applications in blood substitutes, enzyme recovery and analytical interferences^{1,2}

Poly-electrolytes are polymers with repeating units of stationary charges. **HemogloBind™** comes from a class of solid-phase, or surface-based, elastomeric poly-electrolytic surfaces that bind proteins through an empirically derived chemistry combining elements of polymer composition, cross-linking architecture and charge properties. As with bio-polymers like DNA and Heparin, governing their reactivity is the spatial presentation of the electrostatic groups along a flexible polymer chain. This strategy was used in the creation of both Viraffinity™ and **HemogloBind™**.

HemogloBind™ is engineered for a high degree of selectivity and does not cross react with most common serum components, making it an excellent tool in numerous applications. These include analytical protocols where optical interference is problematic, such as bilirubin analysis and bulk serum clarification. Hemoglobin variants, as in thalassemia, bind with differential affinity towards **HemogloBind™**.

For purification and/or analysis of hemoglobin, a modest elevation in pH will facilitate desorption of hemoglobin bound to **HemogloBind™**.





How Hemoglobind™ Works

Hemolyzed serum or plasma sample



Hemoglobind™



Hemoglobin bound to matrix



Flowthrough (supernatant) has serum or plasma proteins (hemoglobin depleted)



Applications for biomarker discovery, enzyme assays, toxicological studies for new drugs, protein profiling using SELDI analysis, protein array pixelation, 1D and 2D gel electrophoresis, LC/MS, and MALDI-TOF MS and cytokines research.

Product	Size	Item No.	2012 Price
HemogloBind™	15ml	HO145-15	\$325
HemogloBind™	50ml	HO145-50	\$745

PROTOCOL

Supplied as an aqueous suspension of synthetic, pH 6.5. The reagent when not used must be kept sealed and stored at 4°C. Do not freeze. HemogloBind™ retains full activity when stored at 4°C for 6 months. Expiration date is shown on product label.

To treat 250 µl of hemolyzed serum using SPIN-X Tubes (Recommended):

1. Shake the HemogloBind™ suspension.
2. Using wide-bore pipette tips, pipette 250 µl or 500ul of the HemogloBind™ suspension into the small tub of the SPIN-X set.
3. Add 250 µl of the hemolyzed serum to the small tub. (~10 mg/mL Hb)
4. Vortex for 20 seconds.
5. Mix by inversion for 15 minutes.
6. Centrifuge for 1-2 minutes at 9000 RPMs.



Supernatant contains hemoglobin depleted sample, while the solid contains the hemoglobin removed.

To treat 250 µl of hemolyzed serum using microfuge tubes:

1. Shake the HemogloBind™ suspension.
2. Using wide-bore pipette tips, pipette 250 µl or 500ul of the HemogloBind™ suspension.
3. Add 250 µl of the hemolyzed serum. (~10 mg/mL Hb)
4. Vortex for 30 seconds.
5. Mix by inversion for 15 minutes.
6. Centrifuge for 1-2 minutes at 9000 RPMs.

Supernatant contains hemoglobin depleted sample, while the solid contains the hemoglobin removed.

Other Analytes

HemogloBind™ cannot reduce interference caused by substances released from erythrocyte hemolysis other than that caused by hemoglobin. It is compatible with Bilirubin, Total Protein, Immunoglobulin, Albumin, Creatinine, ALT, AST, GGT, Creatine Kinase, LDH, BUN, Amylase, Cholinesterase. It is marginally compatible with Alkaline Phosphatase. It is not compatible with Calcium, Magnesium.

Haptoglobin (HAP) Influence

The extent of hemoglobin removal may be influenced by the presence of elevated haptoglobin concentrations and sialo-glycoprotein which may be present in some acute-phase adult serum samples.

Myoglobin Binding

HemogloBind will not bind to Myoglobin, a protein that is structurally similar to hemoglobin but of lower molecular mass.

Hemoglobin Variants

Hemoglobin variants, as in thalassemia, and glycosylated hemoglobin bind with differential affinity towards HemogloBind™.

Desorption of Bound Hemoglobin

For purification and/or analysis of hemoglobin, 100 mM Tris-Borate, pH 9, will facilitate desorption of hemoglobin bound to HemogloBind™.

References

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CONTACT US

We welcome your questions, comments and concerns regarding our products.

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