HemoVoid™ Blood Card Reagent

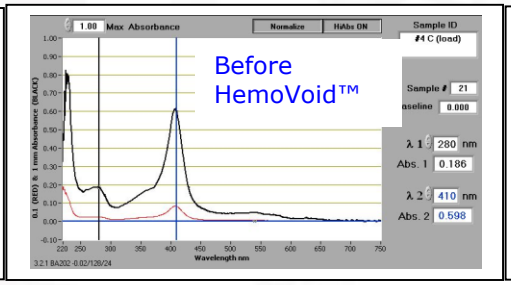
Hemoglobin Depletion And Protein Enrichment From Dried Whole Blood Cards

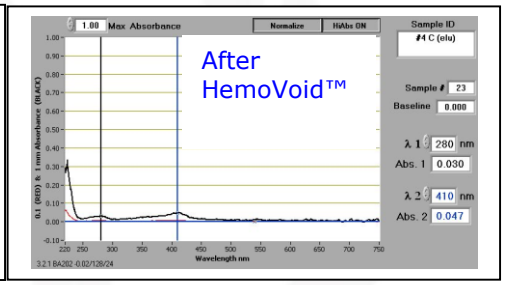
- Hemoglobin voids in flow-through >98%, with <30 minute bind/wash/elute protocol
- Hemoglobin removal from whole blood lysates extracted from dried blood cards
- Blood proteins and enzymes are enriched for potential biomarker and proteomic studies.
- Hemoglobin removal from frozen and fresh whole blood.
- Removes hemoglobin from diverse species incl. human, sheep, bovine, goat, rat, etc.

Hemoglobin is a common contaminant from dried whole blood cards and not normally found in serum samples. The HemoVoid™ Blood Card protocol was designed to substantially reduce the presence of hemoglobin and its associated interference with many serum protein analytes.

HemoVoid™, a silica-based mixed mode matrix, removes hemoglobin from dried whole blood card samples. The HemoVoid™ protocol uses mild buffers; the protocol conditions are so gentle that native enzyme activity is retained in elution fractions.

Abs at 410 nm shows presence of hemoglobin. On left, proteins extracted from dried blood card show high hemoglobin concentration. On Right, after HemoVoid™ treatment, hemoglobin is severely depleted.





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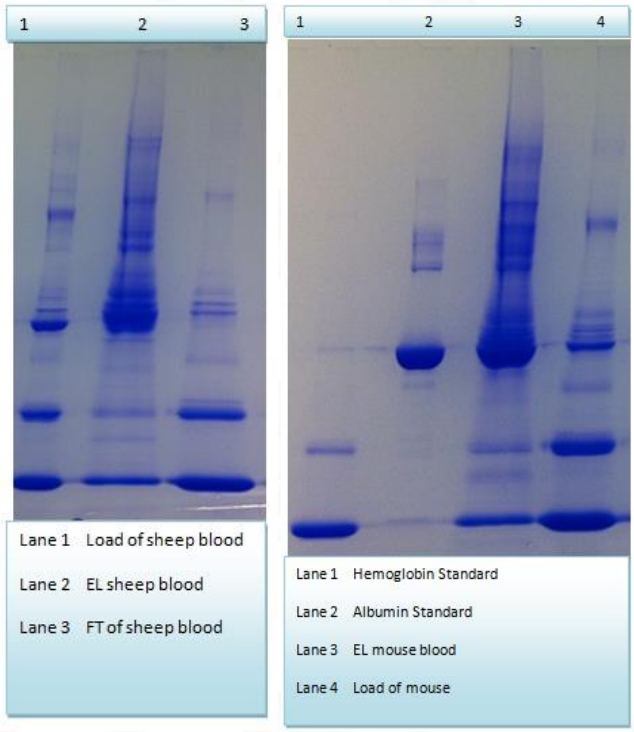
SDS Page (4-20%)

Sheep Blood(left)

Mouse blood (right)



Product	# of samples processed	Item No.
HemoVoid™ Blood Card	10 Dried Whole Blood Card 0.5" Spots	HVBC-10
HemoVoid™ Blood Card	50 Dried Whole Blood Card 0.5" Spots	HVBC-50
NOTE: Please contact sales@biotechsupportgroup.com for prices in bulk amount.		

Kit Content	10 Prep	50 Prep	Reagent
HemoVoid™	0.5 gram	2.5 grams	**Supplied**
Protein Extraction Buffer PEB	5 ml	25 ml	**Supplied**
Binding Buffer HVBB, *PH 6.0*	15 ml	75 ml	**Supplied**
Wash Buffer HVWB, *PH 7.0*	15 ml	75 ml	**Supplied**
Elution Buffer HVEB, *PH 9.8*	3 ml	15 ml	**Supplied**
SpinX Centrifuge tube filters	10	50	**Supplied**
Suggested Or Equivalent Supplier of Blood Card: Whatman 903™ Protein Saver cards			**Not Supplied**

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HemoVoid™ Protocol For Hemoglobin Depletion From Blood Spot/Blood Card

Based on processing 20-50 µl whole blood applied to and dried on Whatman 903™ Protein Saver cards (approximately equivalent to the imprinted 0.5" circle)

1. **Extraction of dried protein from the card.** Punch out the dried blood section from the card into a microfuge tube. Add 400 µl PEB buffer. Shake for 30 minutes at room temperature. Microfuge at 5000 rpm for 4 minutes. Transfer the protein sample to microtube.
2. Weigh out 50 mg of **HemoVoid™** matrix into the supplied SpinX filter.
3. Add 400 µl of **Binding Buffer HVBB** to the SpinX filter. Vortex or mix well for 5 minutes at room temperature followed by centrifugation at 3000 rpm. Discard the supernatant.
4. Repeat step 3.
5. Add 300 µl of **Binding Buffer HVBB** to the SpinX filter. Add 300 µl of the Sample prepared in step 1 to the same SpinX filter. Vortex for 10 min and then centrifuge for 2 minutes at 5000 rpm.
6. Discard the hemoglobin containing filtrate.
7. To the pellet, add 500 µl of **Wash Buffer HVWB**. Vortex or mix well for 5 min and centrifuge for 2 minutes at 5000 rpm. Discard the filtrate.
8. Repeat Step 7, twice.
9. To the pellet, add 200 µl of **Elution Buffer HVEB**. Vortex or mix well for 10 min and centrifuge for 2 minutes at 5000 rpm. Analyze the hemoglobin depleted elute protein.

Related HemoVoid™ References

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Sudha Neelam, David G Kakhniashvili, Stephan Wilkens et al. Functional 20S proteasomes in mature human red blood cells Experimental Biology and Medicine.2011;236:580-591

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