1. **Principle**

Commercially prepared 22% or 30% reagent grade Bovine Serum Albumin (BSA) is diluted with isotonic saline to a concentration of 6% which provides a similar protein concentration as human plasma.

1. **Scope and Related Policies**
   1. 6% albumin may be required in some procedures as a diluent or control reagent.
   2. 6 % albumin may also be used in place of a serologically inert serum for some tests.
2. **Specimen – N/A**
3. **Material**

**Equipment:** Block for test tubes

**Supplies:** Test tubes

Serological pipettes

**Reagents:** Saline

Commercially prepared 30% or 22% BSA

1. **Quality Control**

Serological pipettes should be maintained as per manufacturers’ recommendations including adequate volume delivery, reduction of carryover and absence of contamination. 9.1

1. **Procedure**

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| * 1. Volumes can be either drops or mL. |
| * 1. Dilutions are based on the following formula: 9.2     (Volume1 x Concentration1) = (Volume2  x Concentration2)  V1 x C1 =V2 x C2 |
| * 1. Using 30% BSA to make 2mL of 6% solution of albumin:     V1x30=2x6  30V1=12  V1=12÷30=0.4 |
| * 1. To a labeled test tube add 0.4mLof 30% BSA. |
| * 1. Add 1.6mL saline to the tube. |
| * 1. For smaller volume use 4 drops of 30% BSA and 16 drops of saline to obtain 20 drops of 6% BSA. |
| * 1. Stopper/cover and mix well. |
| * 1. Using 22% BSA to make 2 mL of 6% solution of albumin:     V1x22=2x6  22V1=12  V1=12÷22=0.5 |
| * 1. To a labeled test tube add 0.5mL 22% BSA. |
| * 1. Add 1.5 mL saline to the tube. |
| * 1. For smaller volumes use 5 drops of 22% BSA and 15 drops of saline to obtain 20 drops of 6% BSA. |
| * 1. Stopper/cover and mix well. |

1. **Reporting - N/A**
2. **Procedural Notes**

The diluted BSA should be used on the day it is prepared. Discard any leftover product.

1. **References**
   1. CSTM Standards for Hospital Transfusion Services, ver 3; February 2011: 3.4.5.1.
   2. Fung MK Ed. Technical Manual 18th Edition. AABB Press Bethesda MD; 2014 Method (1-6,) p. 875
2. **Revision History**

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| **Revision Date** | **Summary of revision** |
| December 1, 2014 | * Revised name of manual * Revised wording in section 1.0 to include “which provides a similar protein concentration as human plasma.” * Revised and renumbered sections 5.0 & 6.0 * Updated list of references to include most recent editions |