

## Human AB Serum

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Human Serum AB is collected from healthy male donors of the AB serotype. Seralab Human AB is collected at FDA-licensed facilities in the USA. Human AB material is available in two formats. 'Off Clot' material is produced by allowing whole blood donations to clot naturally and the resulting serum extracted and processed. Plasma-derived serum is produced by converting plasma collected from Human AB donors by plasmapheresis. The plasma is then converted to serum by a process of defibrination.

All donor units are tested at the collection facility for viral markers in accordance with current FDA regulations and found to be non-reactive. The final serum product also undergoes extensive quality control testing before release for distribution. Seralab offers two grades of material. Research Grade for process development and general applications, and Premium Grade offering increased traceability.

## Applications

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Human AB serum is suitable for use in the following applications:

- As an alternative to foetal bovine serum (FBS) for transplantation and cell therapy applications. For example the expansion of mesenchymal stem cells (MSC) from adipose tissue or mesenchymal stromal cells from human bone marrow
- For standardized limbal epithelial stem cell graft generation and transplantation
- For *ex vivo* expansion of NK cells from peripheral blood in Haematopoietic Stem Cell Expansion Medium; and for upgrading pre-transplant human islet culture technology
- A blocking agent for immunohistochemical staining procedures
- A negative control in HLA tissue-typing applications
- Tissue engineering

## Key Benefits

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- Human AB serum is a vital cell culture reagent providing growth factors, vitamins and nutrients, as well as trace elements and transport factors ensuring a suitable environment for the propagation of a variety of human cell types.
- Human AB has been proven to grow many human cell lines at a faster rate and with a smaller percentage of serum required than when using mixed blood human serum. This can also be reduced further by the application of specific cell culture media such as Yssel's T Cell Medium (Code: GEM-400-102).
- Our US sourced material using only Male AB donors meets the health requirements established by 21CFR 610.40 Chapter F, subpart E.
- Human AB serum, converted from plasma, is an economical product and more widely available than off clot serum.

# Product Information

Product Code	Pack Size	Product Code	Pack Size
<b>SM-112-HS</b> Human AB serum, male only, off clot Sterile filtered to 0.2 micron Viral tested Research Grade	100mL	<b>SM-412-HS</b> Human AB serum, male only, converted* Sterile filtered to 0.2 micron Viral tested Research Grade	100mL
<b>SM-512-HS</b> Human AB serum, male only, off clot Sterile filtered to 0.2 micron Viral tested Premium Grade	100mL	<b>SM-612-HS</b> Human AB serum, male only, converted* Sterile filtered to 0.2 micron Viral tested Premium Grade	100mL

All the above products may be supplied heat inactivated or gamma irradiated, on request. All serum is available in both pooled lots or as individual transfer packs from specific donors. Custom preparation and packaging is also available.

\* denotes product converted from plasma using bovine fibrin. Converted plasma is supplied with documentation confirming BSE/TSE status. Material is tested using PCR methodology to ensure freedom from bovine contamination.

## FAQ's

### What is the difference between off clot and plasma derived serum?

Off clot serum is collected from blood that is allowed to coagulate naturally after collection. It has not been exposed to any anticoagulant.

Plasma derived (Converted) serum is produced by defibrinating pooled human blood collected in the presence of an anticoagulant, such as sodium citrate. Defibrination is achieved through the use of bovine thrombin. This converted serum is generally more economical than the off clot product.

Seralab Premium Grade Converted plasma offers material with full traceability from donors who are monitored regularly for health status. Batches may be created from small donor pools and are fully reproducible. Absence of bovine residue is confirmed using PCR methodology. Full information is available on request.

### Is viral testing carried out on Human AB serum?

Serum is viral tested in accordance with FDA Regulation 21 CFR Part 610, Section 40. The final pool is also tested for Hepatitis C RNA, HBV DNA, HTLV-1 RVA and HIV-1 RNA. Full details are available on request.

### What are the advantages of using all male donors?

Male only serum is advantageous (over female only or mixed gender serum) as female donors who have been pregnant may develop antibodies against major histocompatibility class (MHC) antigens carried on the father's cells and/or the foetus' cells. Male donors present no such risks.

### Why do different bottles of human serum sometimes look different from one another?

Seralab goes to great lengths to ensure that our human sera are the most consistent products commercially available. Although our human serum is manufactured using raw material from congruous donor pools and according to time-tested protocols, it is possible to perceive differences in the physical appearance of this product from lot-to-lot. This phenomenon can be largely attributed to variation in diet amongst human beings (particularly with respect to dietary fats).

### Are samples available for Human AB serum?

Yes, we can provide samples for testing prior to the purchase of a specific lot of material.

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