

# PAN-Biotech Human Sera



PAN-Biotech offers three different categories of human serum:  
**„Off the clot“, Seraclot and converted human serum.**

Within these three categories it is possible to choose between a mixed blood groups pool or human serum AB.

Product	Unit	Cat. No.	
Seraclot	20 ml	P40-3011M	<b>NEW</b>
	100 ml	P40-3011	
Seraclot, Type AB, male	20 ml	P40-3001M	<b>NEW</b>
	100 ml	P40-3001	
Human serum	20 ml	P30-2401M	
	100 ml	P30-2401	
Human serum, Type AB	20 ml	P30-2501M	
	100 ml	P30-2501	
Human serum, Type AB, male	20 ml	P30-2901M	
	100 ml	P30-2901	
Human serum off-the-clot	20 ml	P30-2701M	
	100 ml	P30-2701	
Human serum off-the-clot, Type AB, male	20 ml	P40-2701M	
	100 ml	P40-2701	

Human Sera produced by PAN-Biotech consist exclusively of human material.

Human serum may be more suitable for the cultivation of human cells than FBS, since both the serum and the cultured cells belong to the same species. Thus, the physiological and natural conditions *in vitro* are reproduced most similar to those *in vivo*.

Therefore, human serum is particularly suitable for cell culture of human cells, e.g. research in cell and immune therapy, tissue engineering and other applications where the presence of animal derived components is unwanted.

## Advantages

- The raw material has been collected, prepared, tested and released in accordance with EU regulations and current version of the Good Manufacturing Practice Annex 14
- The raw material is derived from donors who are tested negative for HIV 1/2, HIV Ag, anti-HCV, Hbs Ag, Syphilis, HBV DNA, HCV RNA, HIV-1 RNA and have been under medical supervision for 6 months
- All manufacturing steps and test results are documented accurately
- Single-use blood donor bags
- Endotoxin level max. 10 EU/ml

Your expert around cell culture.

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## Human Sera

Human serum is produced from human plasma by addition of calcium chloride. This results in clotting of the plasma. After the coagulation process the cellular and solid constituents of the serum are removed by centrifugation, the human serum is washed and concentrated by ultra-filtration and finally filtered through a combination of depth- and membrane filters.

PAN-Biotech also offers converted human serum from donors with the blood group AB. Their blood does not contain anti-A nor anti-B antibodies, which could damage cultured cells and is therefore particularly suitable for immunological and hematopoietic studies.

### Off-the-clot serum

Off-the-clot serum is prepared from human whole blood collected without anti-coagulant, which is allowed to clot at room temperature and then centrifuged to remove the clot.

We provide single donor units as well as pooled off-the-clot serum. Off-the-clot serum is filtered through depth and membrane filters before filling.



### Seraclot

Seraclot is a human serum which performs equally to the „off-the-clot“ serum in cell culture and in many cases exceeds its quality. An increased content of human growth factors expands the possibilities in cell culture.

Seraclot is perfectly suitable for research in tissue engineering and cell differentiation. Seraclot is composed exclusively of human material.

You can find more information at  
[www.pan-biotech.com](http://www.pan-biotech.com)

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