

# Comparison of two Lymphocytes Separating Media

## Results and Discussion

Peripheral blood mononuclear cells (PBMC) were isolated from heparinized whole blood using density gradient centrifugation with two separating media. The objective of the study was to

compare both media. Each 3 ml blood diluted with 3 ml PBS were overlayed, after the washing steps the cells were resuspended in 2 ml PBS.

The handling was comparable, after centrifugation both separations looked also alike macroscopically (Fig. 1 and 2). Additionally, subfractions of PBMC were quantified. The results are shown in Table 1. In the samples 1 (Ficoll) und 2 (BioClot) erythrocytes were not

found. The absolute and relative portions of cell fractions were comparable between both separating media, only in sample 2 more granulocytes were detected. The total number of PBMC was higher in sample 2

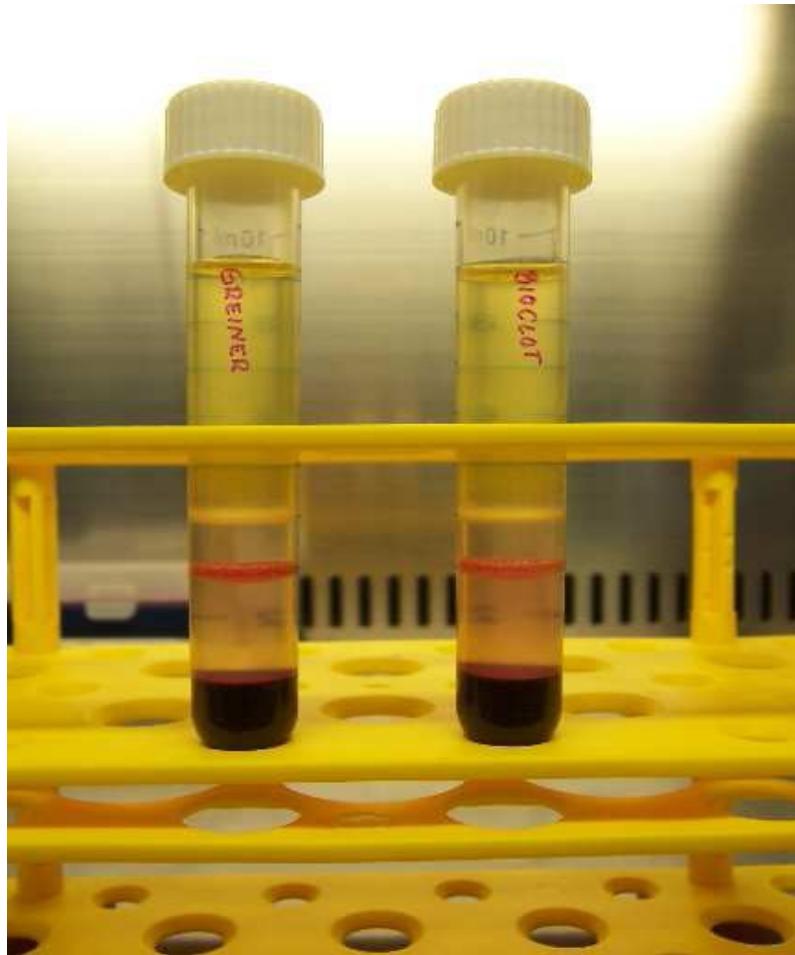
The analysis was carried out once, therefore a statistic significance could not be calculated.

An obvious difference could not be detected between both media. For statistic significance the

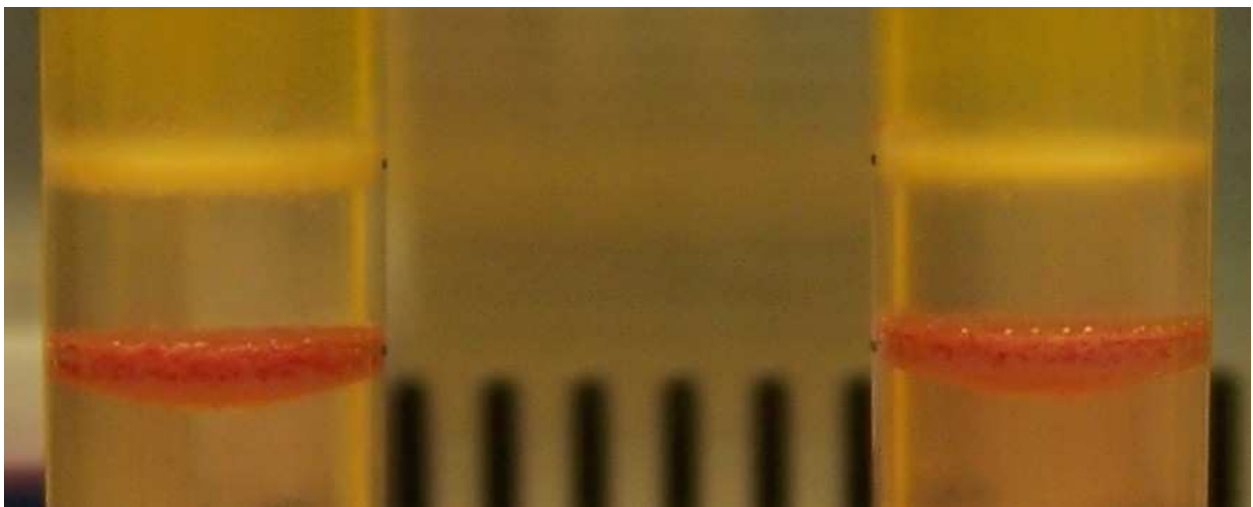
experiment must be repeated with higher sample number.

	<b>Blood sample</b>		<b>Sample 1 (Ficoll)</b>		<b>Sample 2 (BioClot)</b>	
	cells/ $\mu$ l	%	cells/ $\mu$ l	%	cells/ $\mu$ l	%
<b>Leukocytes</b>	5660		1700		2100	
<b>Erythrocytes</b>	4.46 x 10e6		-		-	
<b>Lymphocytes</b>	2411	43	1513	89	1680	80
<b>Monocytes</b>	481	8	85	5	63	3
<b>Granulocytes</b>	2768	49	102	6	357	17
<b>T cells</b>	1918	80	1271	84	1394	83
<b>B cells</b>	283	12	76	5	84	5
<b>NK cells</b>	162	7	151	10	151	9

**Tab. 1:** PBMC subfractions after isolation procedure



**Fig. 1:** Separating Tubes after Centrifugation  
left: Ficoll medium; right: Polysucrose 400 medium



**Fig. 2:** Enlarged Detail from Fig. 1  
left: Ficoll medium; right: Polysucrose 400 medium