

Alpha 2 Macroglobulin concentrators: **Emcyte-FC120 PURE vs Cytonics APIC**

02 November 2015

Donors (N=2) PRP production

Date Drawn	Donor ID	Emcyte 16.6% NA Citrate	APIC 15.5% ACD-A	Emcyte Process Volume/Run	APIC Process Volume/Run
11/2/2015	D1- BSR-001	10ml sodium Citrate 50 ml whole blood	9 ml ACD-A 51 ml whole Blood	2 X 60 = 120 ml	3 X 45 = 135 ml
11/2/2015	D2 -KP-44866	10ml sodium Citrate 50 ml whole blood	9 ml ACD-A 51 ml whole Blood	2 X 60 = 120 ml	3 X 45 = 135 ml

Production runs with PPP

Device	Total volume PPP	Total Volume Concentrate
Emcyte-FC120 PURE	60 ml	13 ml*
APIC	45 ml	10.5 ml

* With inclusion of the 8mL recoverable hold-up volume the total concentrate volume is 13 mL, this volume is used for yield calculations listed below.

For each device, the PPP and PPP Concentrate were prepared according to each manufacturer's Instruction for Use (Emcyte FC120 PURE and APIC AP620.3). For the APIC device, the samples were spun at 3,000 rpm for 4 minutes (Sorval RT6000). PPP (45 ml) was transferred to the APIC disposable which was connected to a Watson Marlow pump Model 505U. For the first Run the pump speed was set at 30, 38, and 45 for 20 minute intervals respectively (total time ~ 60 min.). Run 2, the PPP concentration phase was completed in 20 minutes with a pump speed of 70.

Average Results:

Alpha 2 Macroglobulin (normal value 1,500 – 1,800 µg/mL)

	PPP (µg/mL)	Concentrate (µg/mL)	Yield from PPP	Times baseline
EmCyte	1793	7021	84%	3.85
APIC	1996	5817	74%	3.15

Fibrinogen (normal value 1,500 – 4,500 µg/mL)

	PPP (µg/mL)	Concentrate (µg/mL)	Yield from PPP	Times baseline
EmCyte	4,064	16,947	84%	3.89
APIC	4,420	10,246	54%	2.3

Albumin (normal value 36 – 37.5 mg/mL)

	PPP (mg/mL)	Concentrate (mg/mL)	Yield from PPP	Times baseline
EmCyte	51	249	97%	3.89
APIC	56	141	60%	2.3

Reported By: *R J Mandle*

11 November 2015