

# Supplementary Data

**Table S1. Standard blood parameters of individual RCCs and donor information**

**“Flask Model” (4 replicates)**

Storage Day	2	42	2	42	2	42	2	42	2	42	2	42	2	42	2	42	2	42	2	42	2	42	2	42	2	42	2	42	2	42	2	42
RCC	1 (♂)		2 (♂)		3 (♀)		4 (♀)		5 (♂)		6 (♂)		7 (♀)		8 (♀)		9 (♂)		10 (♂)		11 (♀)		12 (♀)		13 (♂)		14 (♂)		15 (♀)		16 (♀)	
Hb (g/L)	/	/	/	/	/	/	/	/	208	208	208	204	176	186	186	190	198	194	206	210	180	182	192	200	206	204	212	210	198	198	182	182
HCT (%)	/	/	/	/	/	/	/	/	60	63	61	62	55	57	56	57	61	62	63	66	53	56	56	60	59	62	60	64	58	59	58	60
Hemolysis (%)	/	/	/	/	/	/	/	/	0.06	0.26	0.08	0.48	0.05	0.18	0.05	0.28	0.05	0.71	0.05	0.21	0.05	0.25	0.07	0.62	0.29	0.65	0.20	0.59	0.38	0.95	0.02	0.26
Donor age (years)	27		20		24		24		39		25		32		34		38		35		21		35		22		25		34		26	
ABO RhD	O+		O+		O+		O+		A+		A+		A+		A+		A+		A+		A+		A+		A+		A+		A+		A+	

**“Plate Model” (2 replicates)**

Storage Day	2	43	2	43	2	43	2	43	2	43	2	43	2	43	2	43	2	43	2	43	2	43
RCC	1 (♂)		2 (♂)		3 (♂)		4 (♀)		5 (♀)		6 (♂)		7 (♂)		8 (♂)		9 (♀)		10 (♀)		11 (♀)	
Hb (g/L)	230	230	216	210	212	214	178	182	190	190	188	210	188	198	194	202	180	184	204	184	184	192
HCT (%)	61	68	62	67	61	72	53	57	57	58	58	67	59	61	60	67	56	59	61	60	58	62
Hemolysis (%)	0.19	0.24	0.08	0.19	0.09	0.29	0.08	0.26	0.05	0.29	0.04	0.11	0.04	0.18	0.04	0.12	0.05	0.16	0.04	0.22	0.03	0.15
Donor age (years)	27		33		27		23		35		38		19		34		20		26		31	
ABO RhD	O+		A+		A+		O-		A+		A+		O+		A+		A+		O+		A+	

Hemoglobin (Hb), the hematocrit (HCT) and hemolysis were measured in the RCCs that were stored up to 43 days at 4 °C under blood-bank conditions. Furthermore, the donor age and ABO RhD are indicated.

**Table S2. Standard blood parameters of individual FFP units and donor information**

**“Flask Model” (4 replicates)**

**Replicate 1**

**Replicates 2-4**

FFP	Blood group	Donor age (year)	Storage (day)	FFP	Blood group	Donor age (year)	Storage (day)
<b>1</b> (♂)	AB+	25	90	<b>1</b> (♂)	AB+	24	127
<b>2</b> (♂)		25	64	<b>2</b> (♂)		30	133
<b>3</b> (♂)		25	62	<b>3</b> (♂)		26	127
<b>4</b> (♂)		33	44	<b>4</b> (♂)		22	135
<b>5</b> (♂)		27	28	<b>5</b> (♂)		24	128
<b>1</b> (♀)		28	63	<b>6</b> (♂)		28	44
<b>2</b> (♀)		27	64	<b>7</b> (♂)		18	37
<b>3</b> (♀)		22	64	<b>8</b> (♂)		24	37
<b>4</b> (♀)		27	65	<b>9</b> (♂)		20	37
<b>5</b> (♀)		27	64	<b>10</b> (♂)		27	132
				<b>11</b> (♂)	AB+	38	44
				<b>12</b> (♂)		28	37
				<b>13</b> (♂)		25	37
				<b>14</b> (♂)		34	33
				<b>15</b> (♂)		37	44
				<b>1</b> (♀)		31	161
				<b>2</b> (♀)		34	135
				<b>3</b> (♀)		23	135
				<b>4</b> (♀)		37	127
				<b>5</b> (♀)		27	134
				<b>6</b> (♀)		32	135
				<b>7</b> (♀)		26	44
				<b>8</b> (♀)		18	42
				<b>9</b> (♀)		21	41
				<b>10</b> (♀)		37	33
				<b>11</b> (♀)		27	41
				<b>12</b> (♀)		25	37
				<b>13</b> (♀)		19	35
				<b>14</b> (♀)		31	44
				<b>15</b> (♀)		27	41

**“Plate Model” (2 replicates)**

**Replicate 1**

**Replicate 2**

FFP	ABO RhD	Donor age (year)	Storage (day)	FFP	Blood group	Donor age (year)	Storage (day)
<b>1 (♂)</b>	AB+	31	495	<b>1 (♂)</b>	AB+	36	49
<b>2 (♂)</b>		25	495	<b>2 (♂)</b>		28	86
<b>3 (♂)</b>		22	467	<b>3 (♂)</b>		22	86
<b>4 (♂)</b>		21	467	<b>4 (♂)</b>		27	53
<b>5 (♂)</b>		25	467	<b>5 (♂)</b>		24	86
<b>6 (♂)</b>		28	467	<b>6 (♂)</b>		24	64
<b>7 (♂)</b>		25	467	<b>7 (♂)</b>		19	91
<b>8 (♂)</b>		33	443	<b>8 (♂)</b>		36	126
<b>9 (♂)</b>		27	443	<b>9 (♂)</b>		20	48
<b>10 (♂)</b>		24	408	<b>10 (♂)</b>		28	86
<b>11 (♂)</b>		30	408	<b>11 (♂)</b>		30	64
<b>12 (♂)</b>		24	408	<b>12 (♂)</b>		31	59
<b>13 (♂)</b>		24	328	<b>13 (♂)</b>		34	64
<b>14 (♂)</b>		20	328	<b>14 (♂)</b>		30	48
<b>15 (♂)</b>		38	328	<b>15 (♂)</b>		33	51
<b>1 (♀)</b>	AB+	27	495	<b>1 (♀)</b>	AB+	27	49
<b>2 (♀)</b>		19	495	<b>2 (♀)</b>		30	64
<b>3 (♀)</b>		36	495	<b>3 (♀)</b>		25	57
<b>4 (♀)</b>		18	495	<b>4 (♀)</b>		18	63
<b>5 (♀)</b>		21	495	<b>5 (♀)</b>		35	91
<b>6 (♀)</b>		28	467	<b>6 (♀)</b>		28	56
<b>7 (♀)</b>		27	467	<b>7 (♀)</b>		34	63
<b>8 (♀)</b>		22	467	<b>8 (♀)</b>		19	61
<b>9 (♀)</b>		27	467	<b>9 (♀)</b>		26	58
<b>10 (♀)</b>		23	408	<b>10 (♀)</b>		31	43
<b>11 (♀)</b>		18	328	<b>11 (♀)</b>		22	63
<b>12 (♀)</b>		21	328	<b>12 (♀)</b>		32	51
<b>13 (♀)</b>		27	328	<b>13 (♀)</b>		22	48
<b>14 (♀)</b>		19	328	<b>14 (♀)</b>		18	86
<b>15 (♀)</b>		31	328	<b>15 (♀)</b>		22	50

Donor sex, blood group and storage time (at -30 °C) of used FFP units are indicated.