





Rare Donor Program

Country: Switzerland

Rare Donor Program			
Rare Donor Program Yes			
National Regional or Facility based	National program, testing facility based		
Number of Rare Donors	1140		
Definition of Rare	Someone who is negative for a high prevalence antigen where the frequency of this antigen negative phenotype is less than 1 in 250. People with a combination of antigen negative phenotypes may also be considered rare (e.g. Fy(a-b-)).		
Are the donors listed in the International Rare Donor Panel	yes		
Frozen Inventory no			
How are Rare Donors found Mainly by genotyping, but also by phenotyping (rarely by screening family members)			
Number of Rare Donor Units used per year	20-30 (probably not all units counted		
ISBT Rare Donor WP Blood Shipment form used	No		
Outcome of incompatible transfusion form used	No		
Most difficult types to find	Di(a+b-) and Jr(a-)		
Phenotypes confirmed by molecular testing	Yes, if possible (and other way around)		

Phenotype	Total Active Donors	Group O	O Positive	O Negative	Other ABO/Rh
GE:-2,-3	0				
Jk(a-b-)	0				
Ko	0				
Kp(b-)	19	13	10	3	6
MkMk	0				
Rh:-34	0				
U-	2				1
PP1Pk-	0				
SC:-1	0				
En(a-)	0				
At(a-)	0				
Di(b-)	0				
Jr(a-)	0				
Rh null	0				
Vel(-)	36	16	13	3	20
D	0				
Oh	1				

Country/Region: How are your rare donors found?

	Yes / No	Method	Comments
Extended phenotyping donors	Yes	All donors typed for Rh (C, E, c, e) and K - different methods (Grifols, BioRad, Immucor, etc) K+ donors typed for k – Manual method Selected donors typed for Fya, Fyb, Jka, Jkb, M, S and s (different methods)	In most cases the rare phenotype is confirmed with molecular testing
Extended genotyping donors	Yes	High throughput screening (MALDI-TOF Mass spectrometry), in house multiplex PCR-SSP, other methods	Where antisera is available phenotype is confirmed by serology.
Family studies	Yes	Recruitment of family of donors and patients	Information to recruit family of donors/patients is provided to the donor for discussion with family members. Family of patients are contacted via the treating clinician with patient consent.
Antibody investigations	No	Only first-time donors and women after pregnancies are screened	n.a.
Other	n.a.	n.a.	n.a.





Red Cell Product Specifications

Country: Switzerland

	Donor Selection	
Donation		Voluntary
Age or Weight Restrictions	New Donors 18 to 65 years, Multiple donors up to 75 years > 50kg	
Donation Interval		12 weeks
Sexual Activity Precautions	Positive for HIV, Hepatitis B/C, or HTLV	Permanent deferral, HTLV is not tested
	Male to male sex	12 months deferral
	Sex worker or contact with sex worker	12 months deferral
Travel Exclusions	Dengue	1 month deferral
donor has returned from an	Ebola	1 month deferral
area endemic for the listed ———— infectious illnesses	Malaria	6 months deferral Antibody screening: always if donor has lived there for 6 or more month
	West Nile Virus	1 month deferral
Lifestyle	Acupuncture, piercing or tattoo	4 months deferral
	Drug use (Non-prescribed injected)	Permanent deferral
	Incarceration	not in our regulations
CJD restrictions	Permanent deferral: - if donor has lived 6 or more months in the UK between 1.1.1980 and 31.12.1996 - if donor received a blood transfusion after 1980 - if blood related persons have CJD - after transplantation of cornea or meninges - after treatment with human pituitary gland hormones	
Covid restrictions	COVID19 vaccine administration	mRNA Vaccine and non-replicable, vector based vaccine: 48 hours replication-competent, vector based vaccine: 4 weeks
	COVID infection	7 days deferral from last symptoms
	Household contact	5 days deferral after last contact

	Screening test	Risk of blood transfusion transmission
HIV	IHV RNA by ID-NAT (cobas MPX Test)	1 in 34'000'000 risk of blood transfusion transmission
HCV	HCV Ab & HCV RNA by ID-NAT (cobas MPX Test)	1 in 50'000'000 risk of blood transfusion transmission
нву	HBsAg & HBV DNA by ID-NAT (cobas MPX Test)	1 in 320'000 risk of blood transfusion transmission (including OBI)
Syphilis	Treponema syphilis Ab	very low
HTLV (1 & 2)	no screening in Switzerland	very low
CMV	Not routinely screened except in some BTS in Switzerland. Only Ab testing.	very low
Zika Virus	NA	Since about three years no reported infections in Switzerland. Mosquito versieve are only present in a few regions. Risk for transmitting infections through transfusions is very low. There is no need for testing.
West Nile Virus	Seasonal testing of donors at risk by ID-NAT (cobas WNV test)	Reported autochthonous WNV infections in Switzerland does'nt exist. Mos vectors are abundant. A preparedness plan was adopted an published
Babesia	NA	Very rare cases in Switzerland. Babesiosis is not a notifiable disease. L prevalence in arthropods. No testing required.
Trypanosoma cruzi (T. cruzi) Chagas Disease	Ab-testing for donors at risk	One probable case of transfusion transmitted Chagas disease in Switzer was published. Donors born or travelled in countries at risk have to be test release of blood products.
HEV	HEV RNA by testing be pools of 16 (cobas HEV test)	low

	Red Blood Cell Product Leukocyte Depleted
Description	Erythrocyte concentrate (Red Blood Cell) produced from a Whole Blood Donation. RBC is obtained after centrifugation, component separation and Leukocyte depletion
Anticoagulant	Citrate Phosphate Dextrose (CPD) *, 63ml
Additive Solution	Saline Adenine Glucose Mannitol (SAG-M) *, 100ml
Leukofiltration	Leukocytes reduced to < 1x10^6/unit
Average volume	200 – 350ml
Storage Temperature	2°C – 6°C (permanent; no interruption) **
Transport Temperature	2°C – 10°C (max. 24h) **
Storage Duration	42d **
Irradiation Policy	external procedure at the University Hospital Canton of Zurich (USZ), Gamma irradiation 25Gy
Other	hematocrit 0.50 – 0.70; Hb ≥ 40 g/unit

References:

^{*} Fresenius Kabi CompoFlow Quadruple bags, CQ32250
** Regulations ZHBSD Chapter 18A, Version 6, 01.11.2020

	Pediatric Red Blood Cell Product Leukocyte Depleted
Description	Erythrocyte concentrate (Red Blood Cell) produced from a Whole Blood Donation. RBC is obtained after centrifugation, component separation and Leukocyte depletion. The Red Cell Component is divided either into 2 (140ml +/- 20ml) or 4 (70ml +/- 10ml) smaller bags/packs
Anticoagulant	Citrate Phosphate Dextrose (CPD) *, 63ml
Additive Solution	Saline Adenine Glucose Mannitol (SAG-M) *, 100ml
Leukofiltration	Leukocytes reduced to < 1x10^6/unit, initial unit prior splitting
Average volume	140ml +/- 20ml (2 units) or 70ml +/- 10ml (4 units)
Storage Temperature	2°C – 6°C (permanent; no interruption) **
Transport Temperature	2°C – 10°C (max. 24h) **
Storage Duration	42d **
Irradiation Policy	external procedure at the University Hospital Canton of Zurich (USZ), Gamma irradiation 25Gy
Other	

References:

^{*} Fresenius Kabi CompoFlow Quadruple bags, CQ32250
** Regulations ZHBSD Chapter 18A, Version 6, 01.11.2020

	Red Cell Blood Product Washed Leukocyte Depleted
Description	Erythrocyte concentrate (Red Blood Cell) produced from a Whole Blood Donation. RBC is obtained after centrifugation, component separation and Leukocyte depletion and washed with sterile Saline Adenine Glucose Mannitol (SAG-M) solution using a manual process to remove the majority of unwanted plasma proteins, antibodies and electrolytes. The washed red cells are resuspended in SAG-M solution additive
Anticoagulant	Citrate Phosphate Dextrose (CPD) *, 63ml
Additive Solution	Saline Adenine Glucose Mannitol (SAG-M) *, 100ml
Leukofiltration	Leukocytes reduced to < 1x10^6/unit
Average volume	200 ml
Storage Temperature	2°C – 6°C (permanent; no interruption) **
Transport Temperature	2°C – 10°C (max. 24h) **
Storage Duration	24h after washing procedure
Irradiation Policy	external procedure at the University Hospital Canton of Zurich (USZ), Gamma irradiation 25Gy
Other	erythrocyte concentrate for intrauterine transfusion haematocrit 0.70 – 0.85 (0; RhD and Rh/K must be compatible with the maternal blood; RBCs to be transfused must be compatible with allo-antibodies in the maternal blood)

References:

* Fresenius Kabi CompoFlow Quadruple bags, CQ32250

** Regulations ZHBSD Chapter 18A, Version 6, 01.11.2020



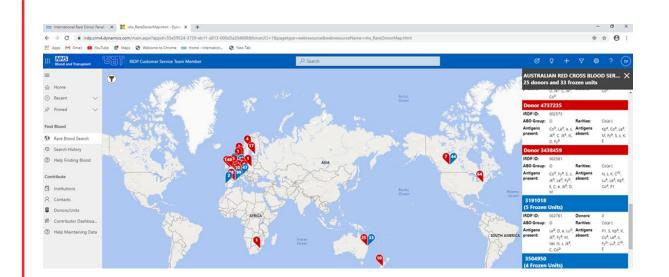


Frozen Inventory

Country: n.a.

General Information		
Freezing Method	N.A.	
Frozen Expiry (years)		
Storage Temperature		
Can inventory be issued and sent frozen		
Thawing Method		
Thawed Expiry (days)		
Additive Solution		
Irradiation Policy		
IUT and Neonate use		
Supply out of date Policy		

	Product Specifications
Volume	
Supernatant Haemoglobin	
Haematocrit	
Haemoglobin	
Osmolarity	
Residual leucocyte content	
Sterility	
Other	





Ordering and Shipping

Country: Switzerland

Exporting	
Request form available	No
Government Requirements	No
Regulatory Requirements	No
Rare Donor Program Requirements	Preferred courier – World Couriers
Other	NA

	Importing
Government Requirements	National Blood Authority (Swiss Medic) approval to import Blood Products from other countries
Regulatory Requirements	NA
Rare Donor Program Requirements	A copy of all test results for the donation e.g. blood group, phenotype and infectious disease screening Temperature monitored transport (Preferred courier – World Couriers)
Other	NA