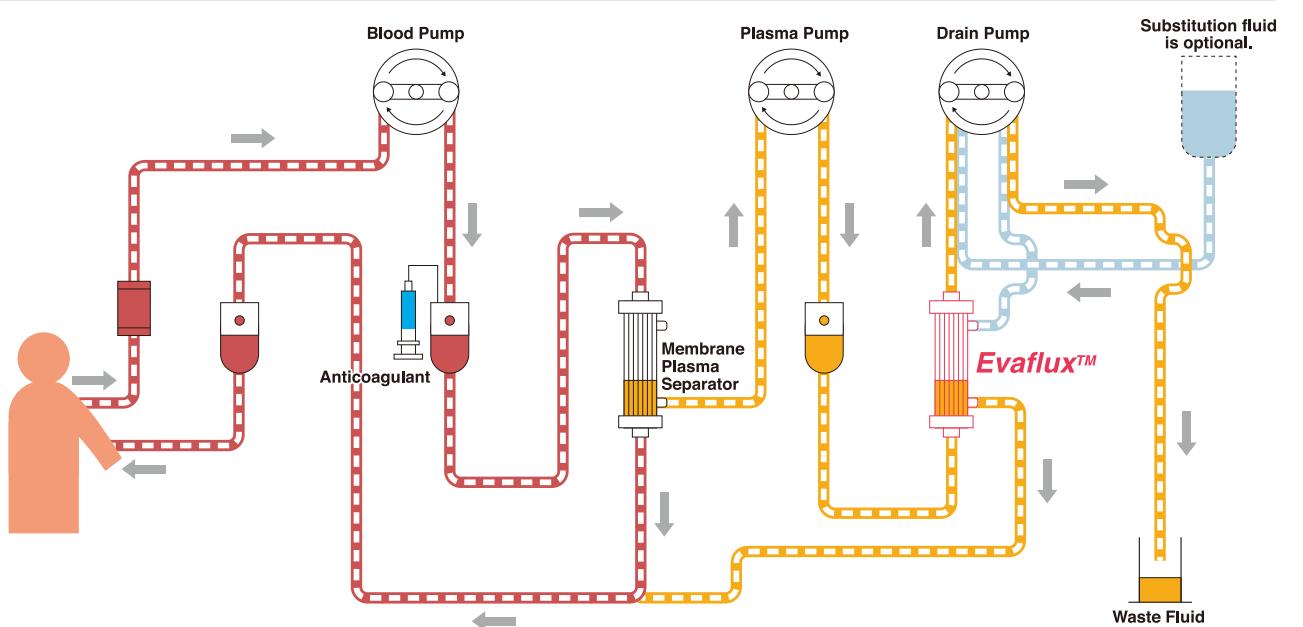
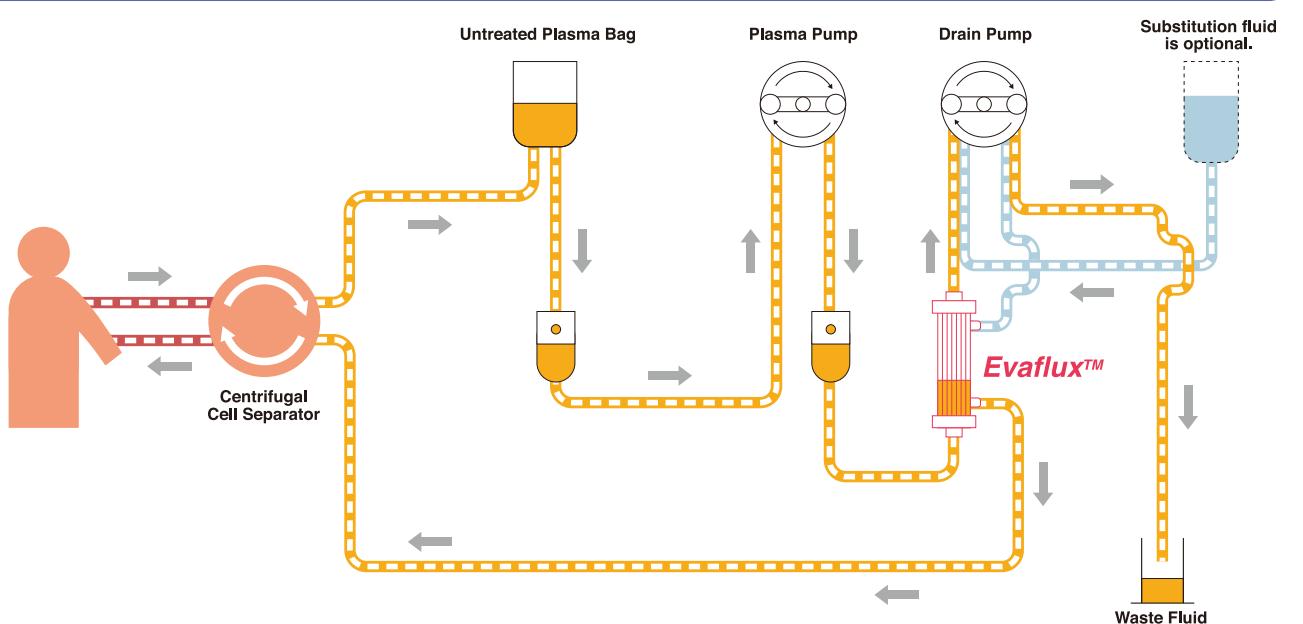


### Flow Diagram of Double Filtration



### Flow Diagram of Cascade Filtration (in combination with Centrifugal Cell Separator)



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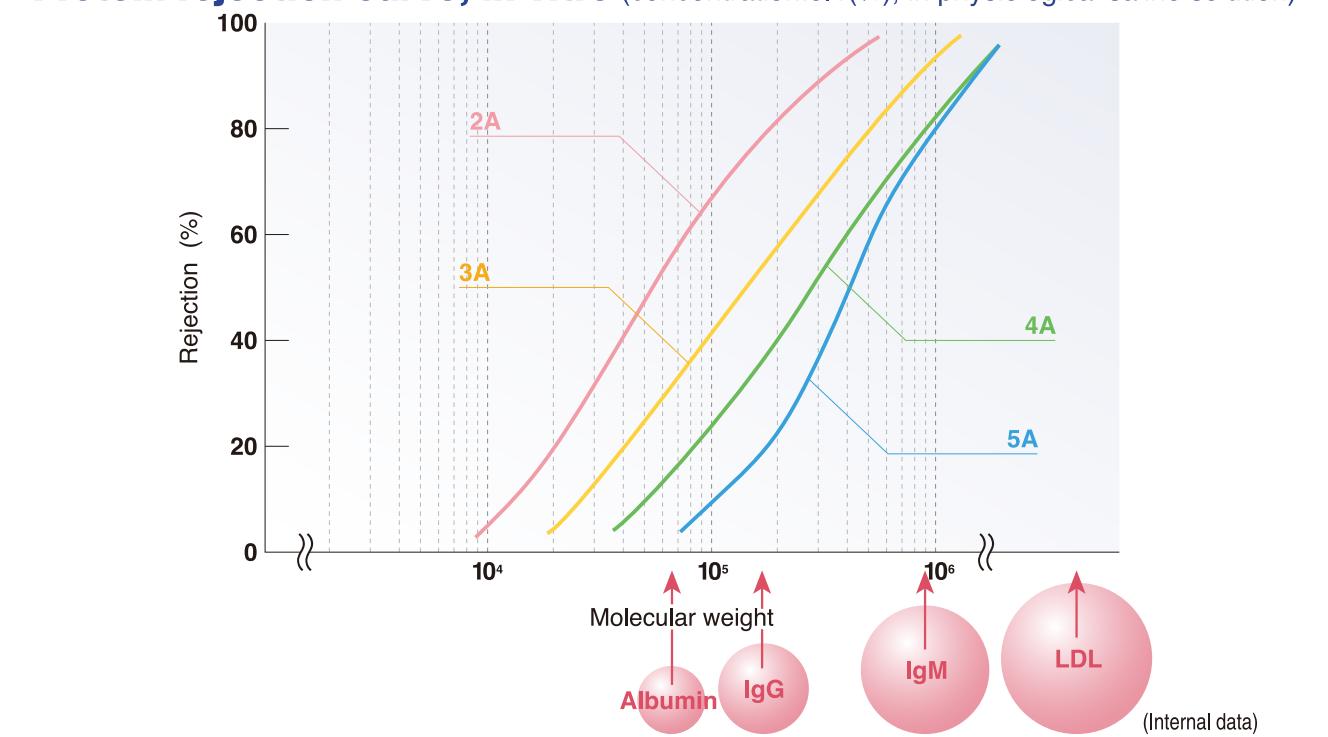
\* Evaflux™ is a trademark of SB-KAWASUMI LABORATORIES, INC.



### Specifications

Model	2A10	4A10	5A10	2A20	3A20	4A20	5A20					
Hollow Fiber	Material Ethylene vinyl alcohol copolymer											
	Inner diameter 175 ( $\mu\text{m}$ )											
	Wall thickness 40 ( $\mu\text{m}$ )											
Housing	Surface area 1.0 ( $\text{m}^2$ )		2.0 ( $\text{m}^2$ )									
	Effective length 280 (mm)											
	Outer dimension 45 Ø x 280 L (mm)		57 Ø x 280 L (mm)									
Material	Poly-carbonate resin											
	Priming volume Approx.82 (ml)		Approx.150 (ml)									
	Filled liquid Sterile water											
	Sterilization method Gamma-ray irradiation											

### Protein rejection curve, in vitro (concentration:0.1%), in physiological saline solution)



Distributed by

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Manufacturer

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Manufacturing facility

**Kawasumi Laboratories (Thailand) Co., Ltd.**

KLE-EF-2301-04-FF

# Double/Cascade Filtration with Plasma Fractionator

# Double/ Cascade Filtration with Plasma Fractionator

Plasma Fractionator  
**Evaflux™**

## Applications of Double/ Cascade Filtration

Double/ Cascade Filtration is applicable for a variety of diseases.

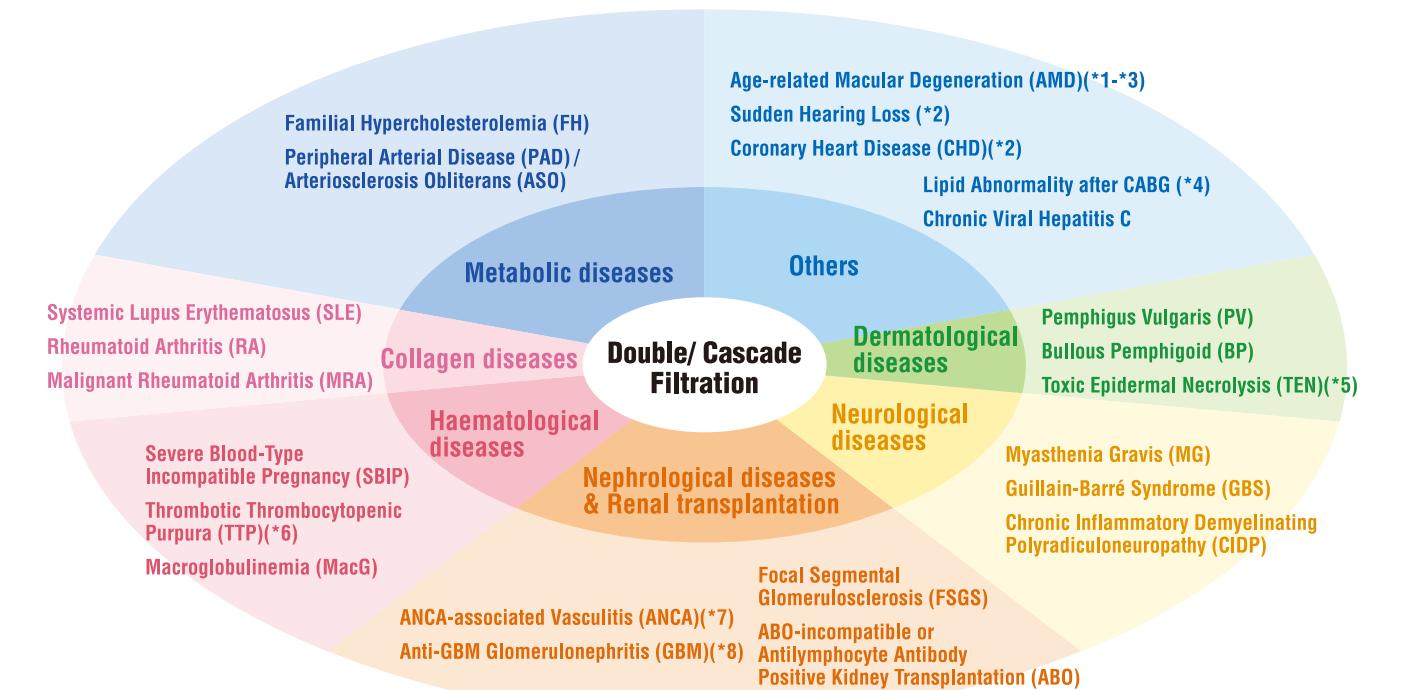


Fig 1 : Applications of Double/ Cascade Filtration (Based on Japanese Health Insurance coverage and Bibliography references 1 to 8)

## Role of Double/ Cascade Filtration

Double/ Cascade Filtration, which is similar to other apheresis procedures, can significantly contribute to the improvement of the patients' quality of life, abbreviate the time required to obtain remission, support the dose reduction of medications, diminish the side effects of drugs and enable the treatment of otherwise untreatable diseases. (Excerpt from \*9)

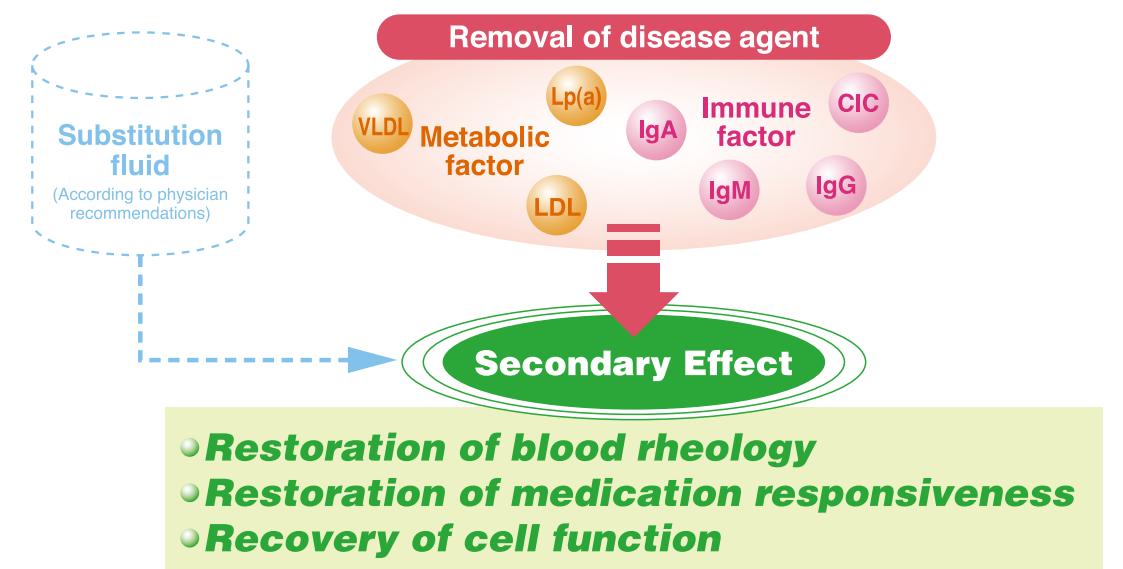


Fig 2 : How Double/ Cascade Filtration works (Excerpt from \*10)

## What is Double/ Cascade Filtration?

### Principle

To selectively deplete a plasma fraction that contains disease associated high molecular weight substances and to reduce or eliminate the requirement for substitution fluid such as albumin.

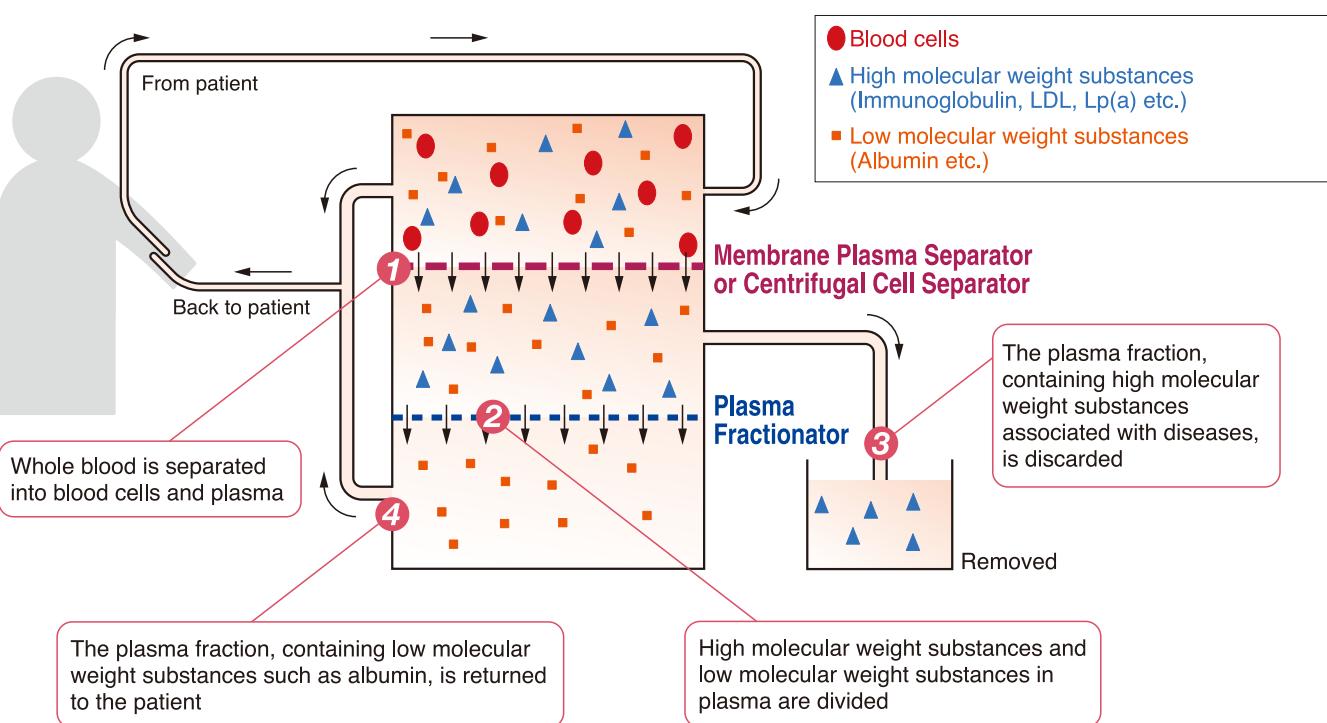
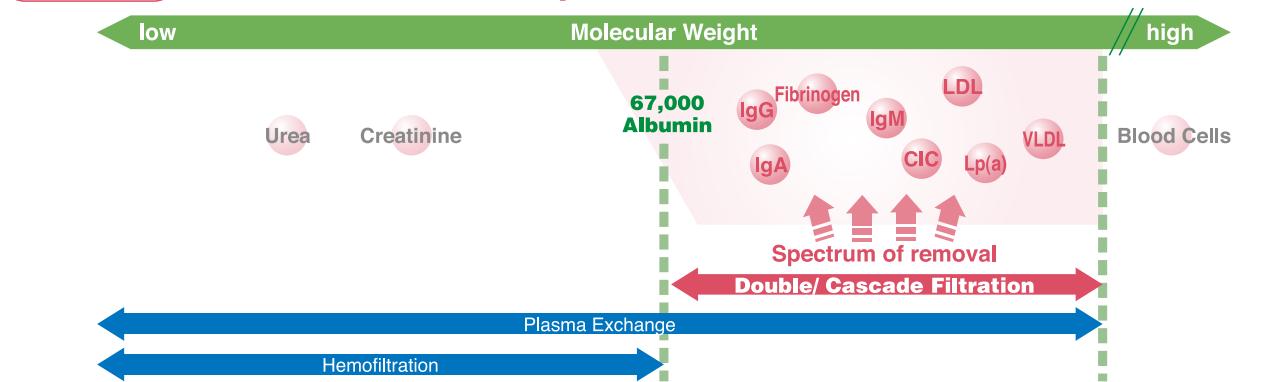


Fig 3 : Principle of Double/ Cascade Filtration (Conceptual diagram was proposed by Prof. Agishi, \*11)

## Benefits of Double/ Cascade Filtration

**Benefit 1** Selective depletion of plasma components based on their molecular size

**Benefit 2** Reduced or no requirement for substitution fluid



**Benefit 3** Wide range of applications

Double/ Cascade Filtration can remove the targeted high molecular weight substances efficiently by choosing the appropriate plasma fractionator with specific pore size.

## Example of Plasma Fractionator Evaflux™

~ Selectable from 4 different pore size (2A, 3A, 4A, 5A) according to diseases ~

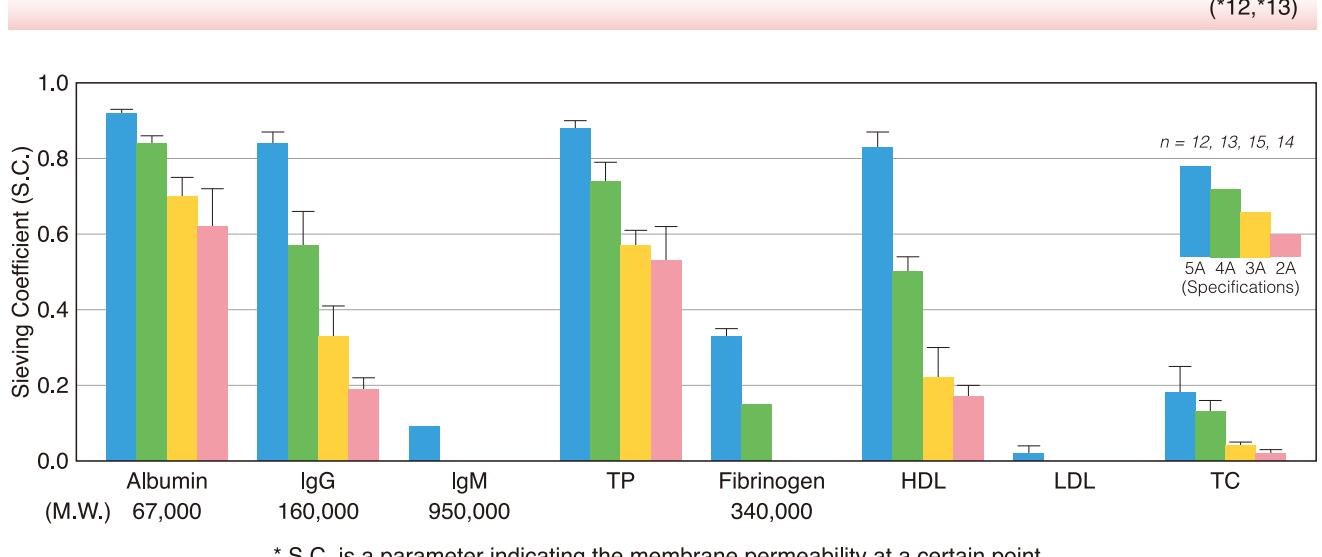


Fig.5 Sieving Coefficient of "Evaflux™" (When 1,000 ml of plasma was processed)

**Evaflux™ 2A** can remove Immunoglobulins while allowing Albumin to be returned.

Evaflux™ 2A	Alb. ■	IgG ✕	IgM ▲
S.C.	0.62	0.19	0.00

**Evaflux™ 5A** can remove LDL while allowing Albumin and HDL to be returned.

Evaflux™ 5A	Alb. ■	HDL ●	Fib. ○	LDL ●
S.C.	0.92	0.83	0.31	0.02

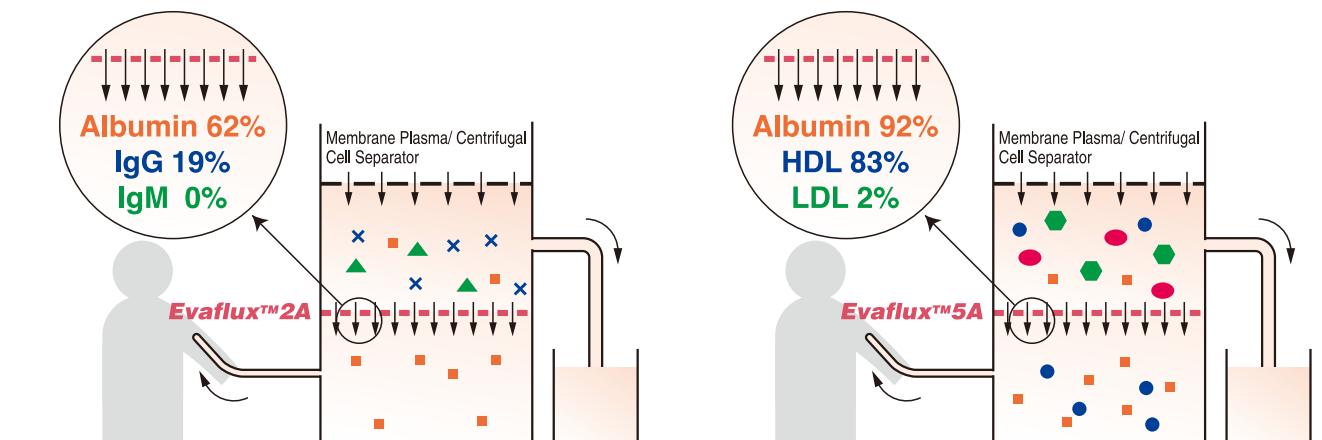


Table 1 : Example of reports about the Double/ Cascade Filtration with "Evaflux™"

Evaflux™	Model	Nephrological/ Renal transplantation			Metabolic		Dermatological		Collagen		Haematological		Neurological		Others
		2A	ANCA (*7)	GBM (*8)	ABO (*15)	FSGS (*14)	FH (*16)	PAD (*26)	BP (*18)	SLE (*19)	RA, MRA (*20)	SBP (*22)	MG (*23)	GBS (*24)	CIDP (*25)
	4A														AMD (*1-3)
	5A														MacG (*21)

\* Table 1 shows representative examples.

\* Please note that the above table is for reference use only. The responsible physician will need to choose a specific membrane according to the patient's condition.