

Production of Modified Autologous Conditioned Serum and *Ex Vivo* Assessment of Its Healing Potential in Murine Corneal Epithelium

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Materials

Name	Company	Catalog Number	Comments
96-well culture plate	Merck KGaA, Germany	CLS3997	
Barraquer lid speculum	katena	K1-5355	15 mm
Barraquer needle holder	Katena	K6-3310	without lock
Barron Vacuum Punch 8.0 mm	katena	K20-2108	for cutting filter paper
BD 10.0 mL vacutainer tubes containing heparin 158 USP units	Becton,Dickinson and Company, US	367880	At least 6 tubes, necessary to collect blood for subsequent experiments and to avoid blood agglutination
BD 21 G butterfly-winged infusion set	Becton,Dickinson and Company, US	367281	For even distribution of glycerol solution
C57BL/6 mice	National Laboratory Animal Center	RMRC11005	for mouse model
Castroviejo forceps 0.12 mm	katena	K5-2500	
Centrifuge	Eppendorf, Germany	5811000428	3,500 x g for 10 min
Cheng Yi 10.0 mL sterilized eye dropper bottle	Cheng Yi Chemical, Taiwan	CP405141	Must be sterile and as the storage container for the final product
Corneal rust ring remover with 0.5 mm burr	Algerbrush IITM; Alger Equipment Co., Inc. Lago Vista, TX	CHI-675	for debridement of the corneal epithelium
Dulbecco's modified minimal essential medium	Merck KGaA, Germany	D6429	
Filter paper	Toyo Roshi Kaisha,Ltd.	1.11	
Fluorescein sodium ophthalmic strips U.S.P	OPTITECH	OPTFL100	staining for corneal epithelial defect
Incubator	Firstek, Taiwan	S300S	37 °C for 4 h
Kanam sterile gloves	Kanam Latex Industries, India	EN455	For aseptic operation
Merck 0.22 µm filter	Merck KGaA, Germany	PR05359	At least 2 filters for mACS filtration

Nang Kuang 250 mL 10% glycerol solution	Nang Kuang Pharmaceutical, Taiwan	19496	To offer suitable membrane stabilization effect and extracellular osmotic pressure for blood cells
Normal saline	TAIWAN BIOTECH CO., LTD.	100-120-1101	
Skin biopsy punch 2mm	STIEFEL	22650	
Stereomicroscope	Carl Zeiss Meditec, Dublin, CA	SV11	microscope for surgery
Terumo 18 G needle	Terumo, Taiwan	SMACF0120-18BX	3.0 mL syringe with 18 G needle to extract the supernatant after centrifugation
Terumo 20.0 mL syringe	Terumo, Taiwan	MDSS20ES	Could be used to collect serum after initial centrifugation and use it for secondary centrifugation.
Terumo 3.0 mL syringe with the 23 G needle	Terumo, Taiwan	MDSS03S2325	3.0 mL syringe is used to extract the supernatant after centrifugation. Then connect the filter and the 23 G needle for injection into the eye drop bottles.
Westcott Tenotomy Scissors Medium	katena	K4-3004	