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(54) **FORMULATIONS FOR TREATING EYE DISORDERS**

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(57) **ABSTRACT**

The present disclosure relates to ophthalmic solutions and methods of using the solutions to treat ocular disorders
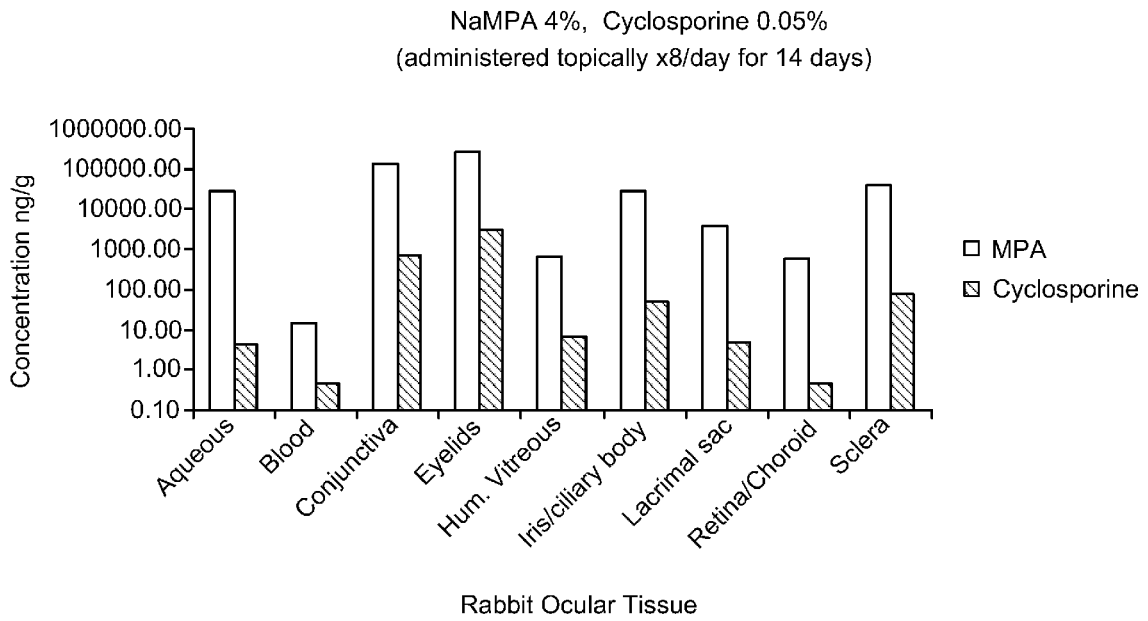
NaMPA 4%, Cyclosporine 0.05%
(administered topically x8/day for 14 days)

FIG. 1

NaMPA 4% & Cyclosporine 0.05% (administered x8/day for 14 days)	
Rabbit Ocular Tissue	Ratio MPA/Cyclosporine
Eyelids	81.82
Lacrimal sac	766.56
Conjunctiva	189.09
Sclera	549.53
Aqueous	6062.11
Iris/ciliary body	574.30
Hum. Vitreous	101.31
Retina/Choroid	1151.50
Blood	29.40

FIG. 2

MPA Tissue Concentrations 1-Day Acute Studies				
Test Article	1% MPA sodium	1% MPA sodium + borate	1% MPA tromethamine	1% MPA morpholine
Eye tissue	Calculated Concentration (µg/g)	Calculated Concentration (µg/g)	Calculated Concentration (µg/g)	Calculated Concentration (µg/g)
Rabbit #	1517	1539	1527	1534
Lacrimal Sac/Eyelid R+L	15.20	44.60	40.55	29.80
Cornea R+L	20.10	20.35	14.48	17.55
Conjunctiva R+L	34.50	19.85	6.59	6.42
Sclera R+L	7.45	2.62	1.90	2.31
Aqueous Humor R+L	3.11	2.80	1.13	4.08
Iris/Ciliary R+L	2.16	0.87	0.42	0.61
Retina-Choroid R+L	0.21	0.13	0.06	0.06
Lens R+L	0.16	0.10	0.06	0.20
Vitreous Humor R+L	0.05	0.03	0.01	0.01

FIG. 3A

MPA Tissue Concentrations 1-Day Acute Studies				
Test Article	2% MPA sodium	2% MPA sodium + borate	2% MPA tromethamine	2% MPA morpholine
Eye tissue	Calculated Concentration (μg/g)	Calculated Concentration (μg/g)	Calculated Concentration (μg/g)	Calculated Concentration (μg/g)
Rabbit #	1488	1456	1550	1522
Lacrimal Sac/Eyelid R+L	23.90	53.15	107.50	34.35
Cornea R+L	50.95	65.05	71.75	34.70
Conjunctiva R+L	41.55	32.55	58.50	21.95
Sclera R+L	11.10	4.93	12.55	7.90
Aqueous Humor R+L	6.42	6.01	6.05	19.02
Iris/Ciliary R+L	1.83	1.52	1.32	1.42
Retina-Choroid R+L	0.31	0.17	0.24	0.18
Lens R+L	0.23	0.12	0.14	0.10
Vitreous Humor R+L	0.03	0.03	0.02	0.02

FIG. 3B

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