



EYE DROP SYSTEM **COL**[®]

DEVICE DESIGNED, MANUFACTURED AND PATENDED FOR THE APPLICATION OF SERUM EYE DROPS AND PLATELET CONCENTRATE.

The products of the COL line have different configurations to **satisfy the specific needs of each physician.**

COL is the ramp configuration with **10 or 20 applicators.**

COL.C is the string configuration with **30, 40 or 50 applicators.**

Applicators can contain **45 drops** (1.45 ml) or **80 drops** (2.50 ml).

The dropper of each applicator has been designed to provide always the same amount of eye drop serum; **each drop is 0.031 ml.**

Applicators are **certified to resist temperatures up to - 80° C.**

In this way serum eye drops can be frozen and delivered to the patient.

Anti-bacterial filters are fitted to the cap of each applicator to keep it sterile until it is used.

EYE DROPS WITH SERUM

Human tears are rich in “natural unique elements” and growth factors, such as vitamins, fibronectin, cytokines, albumin, important for maintaining a healthy corneal and conjunctival epithelium. These components cannot be found in artificial tear preparations which often contain preservatives, stabilizers and other additives, which potentially induce allergic reactions.

Eye drops from autologous serum resolve these drawbacks with their tear-like biochemical characteristics and supply nutritional components. Therefore it is used “not only to humidify the eye surface, but also to provide nutritional and growth factors necessary to maintain cellular feasibility in the epithelial repair processes, and bactericide components which reduce the risk of contamination and infection”.¹

COMPARATIVE CONCENTRATIONS OF TEARS AND AUTOLOGOUS SERUM OF THE MAIN EPITHELIOTROPIC FACTORS

	EGF (ng/ml) epithelial growth factor	TGF-β (ng/ml) transforming growth factor	VITAMIN A (mg/ml)	LYSOZYME (mg/ml)	FIBRONECTIN (µg/ml)
TEARS	0.2 - 3.0	2 - 10	0.02	1 - 4	21
SERUM	0.5	6 - 33	46	6	205

1 - López-García J. S., García-Lozano I., Rivas L., Martínez-Garchitorena J. - Use of autologous serum in ophthalmic practice - Arch Soc Esp Oftalmol 2007; 82: 9-20.

THE EFFECT OF AUTOLOGOUS PLATELET LYSATE EYE DROPS

Vitamin A, Endothelial Growth Factor (EGF), fibronectin, Tissue Growth Factor β (TGF-β), and nerve growth factor (NGF) are necessary for maintaining the integrity of conjunctival and corneal integrity and it has been demonstrated that LPA is rich in these GFs. In our study, subjects without a satisfactory control of the disease with conventional topical therapy achieved improvement in symptoms after APL treatment. This

improvement was significantly higher compared to patients treated with tear substitutes. Break up time (FBUT) average and, in consequence, the mean value of Ocular protection Index (OPI) increased in patients treated with APL, indicating greater stability and an improvement in quality of the tear film. The corneal staining score improved significantly and after 90 days of treatment 80% of patients showed an Oxford score ≤1.²

2 - A. M. Fea, V. Aragno, V. Testa, F. Machetta, S. Parisi, S. D’Antico, R. Spinetta, E. Fusaro, and F.M. Grignolo - The effect of autologous Platelet Lysate Eye drops: An in Vivo confocal microscopy Study - Hindawi Publishing Corporation BioMed Research International, 2016, Article ID 8406832.

TIME - BODY RESPONSE TO TISSUE INJURY



COL®				COL®.C			
REF	APPLICATORS PER KIT	ONE APPLICATOR FILLING VOLUME	DROPS PER APPLICATOR	REF	APPLICATORS PER KIT	ONE APPLICATOR FILLING VOLUME	DROPS PER APPLICATOR
COL10	10	0 - 1,45 ml	45	COLC30	30	0 - 1,45 ml	45
COL20	20	0 - 1,45 ml	45	COLC40	40	0 - 1,45 ml	45
COLB10	10	0 - 2,50 ml	80	COLC50	50	0 - 1,45 ml	45
COLB20	20	0 - 2,50 ml	80	COLCB30	30	0 - 2,50 ml	80
				COLCB40	40	0 - 2,50 ml	80
				COLCB50	50	0 - 2,50 ml	80



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