

MONOBLUE SafR

2nd GENERATION

ULTRA-PURE TRYPAN BLUE + FREE RADICAL SCAVENGER



Arcad allows you to choose

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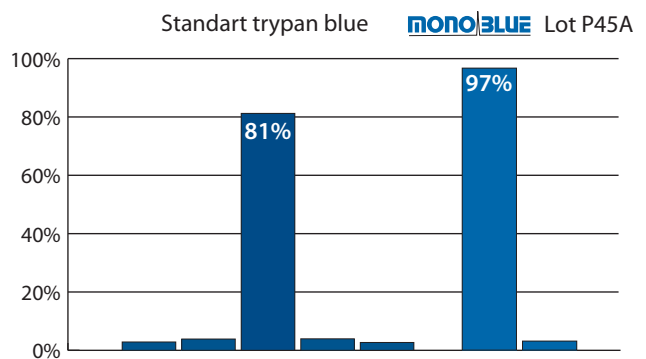


Ultra-pure Trypan blue 2nd generation

MONOBLUE SafR INCREASES THE SAFETY OF TRYPAN BLUE

■ An ultra-pure staining agent guaranteed by Arcad proprietary process.

- No O-tolidine
- No purple compound
- No mono-azo
- Phthalate free
- Preservative free
- Latex free
- Endotoxin: ≤ 0.5 UE/mL



MANNITOL, AN EFFECTIVE PROTECTIVE AGENT

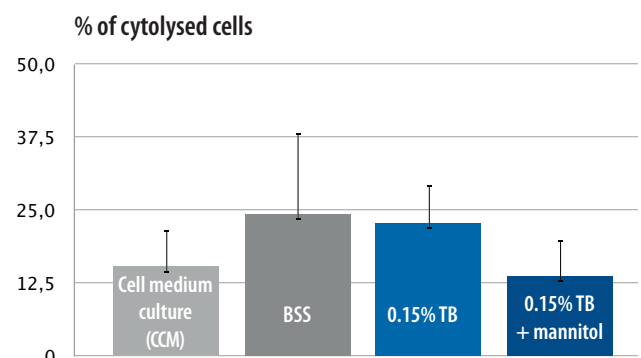


■ Mannitol improves the tolerance of trypan blue.

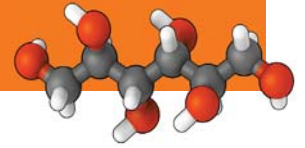
Number of cytolysed cells in trypan blue with mannitol is lower than in trypan blue alone.

- Trypan Blue without mannitol: $22,73 \pm 6,6$ %.
- Trypan Blue with mannitol: $13,73 \pm 6,2$ %.

1. Study of human retinal ARPE-19 cells tolerance to various Trypan Blue solutions. (Datas Arcadophta)



MANNITOL, A FREE RADICAL SCAVENGER

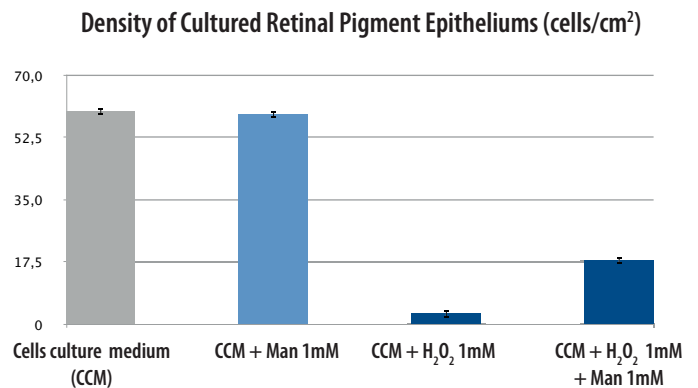


■ Mannitol: an effective anti-oxidant agent in intraocular use.

Mannitol is protecting retinal pigment epithelium cells from the oxidative effect of H_2O_2 .

Density of retinal pigment epithelium cells in:

- CCM + H_2O_2 1mM: 3 cells/cm²
- CCM + H_2O_2 1mM + Mannitol 1 mM : 18 cells /cm²
- CCM + Mannitol 1 mM: 59 cells /cm²



1. Liu JH and a. Therapeutic effects and mechanisms of action of mannitol during H₂O₂-induced oxidative stress in human retinal pigment epithelium cells. *J Ocul Pharmacol Ther.* 2010 Jun;26(3):249-57.

2. Gupta LY, Marmor MF. Mannitol, dextromethorphan, and catalase minimize ischemic damage to retinal pigment epithelium and retina. *Arch Ophthalmol.* 1993 Mar;111(3):384-8.

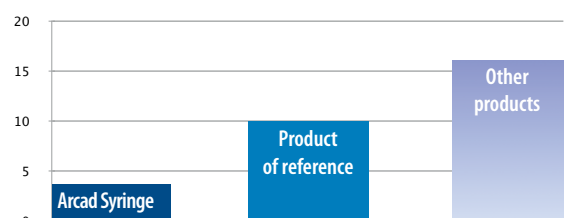
MONOBLUE SafR PRESENTATION GUARANTEES A CONTROLLED INJECTION

■ Sterile, apyrogenic, single use.



- Pre-filled 0,75mL syringe individually pouched.
- Long barrel to monitor the injected volume.
- Soft sliding plunger to smoothen the injection.

Required force of pressure on the barrel for the injection (N)





■ An effective staining for Capsulorhexis and various applications for an anterior segment use.

CAPSULORHEXIS: TO STAIN THE ANTERIOR CAPSULE OF THE LENS

1. Nodarian M, Feys J, Sultan G, Salvanet-Bouccara A. [Capsulorhexis staining by trypan bleu in mature cataract surgery]. *J Fr Ophtalmol*. 2001 Mar;24(3):274-6.
2. Saini JS, Jain AK, Sukhija J, Gupta P, Saroha V. Anterior and posterior capsulorhexis in pediatric cataract surgery with or without trypan blue dye: randomized prospective clinical study. *J Cataract Refract Surg*. 2003 Sep;29(9):1733-7.

CATARACT / VISUALIZATION OF CRYSTALLINE EPITHELIAL CELLS

1. Werner L, Pandey SK, Escobar-Gomez M, Hoddinott DS, Apple DJ. Dye-enhanced cataract surgery. Part 2: learning critical steps of phacoemulsification. *J Cataract Refract Surg*. 2000 Jul;26(7):1060-5.
2. Sharma N, Gupta V, Vajpayee RB. Trypan-blue-assisted posterior capsule plaque removal. *J Cataract Refract Surg*. 2002 Jun;28(6):916-7.
3. Kiel AW, Butler T, Gregson R. A novel use for trypan blue to minimize epithelial cell proliferation in pediatric cataract surgery. *J Pediatr Ophthalmol Strabismus*. 2003 Mar-Apr;40(2):96-7.

GLAUCOMA

1. Healey PR, Crowston JG. Trypan blue identifies antimetabolite treatment area in trabeculectomy. *Br J Ophthalmol*. 2005 Sep;89(9):1152-6.
2. Agrawal S, Agrawal J, Agrawal TP. Use of trypan blue to confirm the patency of filtering surgery. *J Cataract Refract Surg*. 2005 Jan;31(1):235-7.

CORNEA

1. Roos JC, Kerr Muir MG. Use of trypan blue for penetrating keratoplasty. *J Cataract Refract Surg*. 2005 Oct;31(10):1867-9.
2. Balestrazzi E, Balestrazzi A, Mosca L, Balestrazzi A. Deep lamellar keratoplasty with trypan blue intrastromal staining. *J Cataract Refract Surg*. 2002 Jun;28(6):929-31.
3. Sinha R, Vajpayee RB, Sharma N, Titiyal JS, Tandon R. Trypan blue assisted descemetorhexis for inadvertently retained Descemet's membranes after penetrating keratoplasty. *Br J Ophthalmol*. 2003 May;87(5):654-5.

OTHERS STAINING APPLICATIONS

1. Norn MS. Vital staining of corneal endothelium in cataract extraction. *Acta Ophthalmol (Copenh)*. 1971;49(5):725-33.
2. Hu DJ, Basti S, Bryar PJ. Staining characteristics of preserved human amniotic membrane. *Cornea*. 2003 Jan;22(1):37-40.
3. Kobayashi A, Sugiyama K. Visualization of conjunctival cyst using Healon V and trypan blue. *Cornea*. 2005 Aug;24(6):759-60.
4. Cheung LM, Wilcsek GA, Francis IC, Coroneo MT. Staining of the tenon capsule with trypan blue during enucleation surgery. *Arch Ophthalmol*. 2005 Aug;123(8):1125-6.
5. Cacciatori M, Chadha V, Bennett HG, Singh J. Trypan blue to aid visualization of the vitreous during anterior segment surgery. *J Cataract Refract Surg*. 2006 Mar;32(3):389-91.