

# M2 & M16 – Mouse Embryo Media Liquid

CytoSpring

320 Logue Ave, Ste 140  
Mountain View, CA 94043  
Email: [info@cytospring.com](mailto:info@cytospring.com)  
Tel/Fax 650-988-6699  
[cytospring.com](http://cytospring.com)

## Product Information

---

**Background** Preimplantation embryos are used widely in many biological applications. To maintain these embryos in healthy state during their collection and handling, the M2 and M16 media were derived.

There are two critical factors in M2 medium that make it suitable for embryo culture outside the CO<sub>2</sub> incubator for extended period of time. The first is its buffering capacity. Upon exposure to air media that contain only sodium bicarbonate (NaHCO<sub>3</sub>), such as M16, will quickly become alkaline; whereas HEPES-containing media will not. As a modified Kreds-Ringer solution, M2 contains both HEPES and bicarbonate<sup>1</sup>. The second factor is the energy source. Preimplantation embryos do not utilize glucose efficiently. In this regard, M2 also contains pyruvate and lactate – both can be utilized by the preimplantation embryos.

**Storage** Product is prepared fresh and shipped on pre-chilled ice packs. Upon receiving, use within two weeks; or, aliquot immediately and store at – 20° to – 80° C and use within 2 months. Frozen stock, once thawed, has a shelf life of 2 weeks. Thawed medium must be stored at 2°C to 8°C between uses. Thawed media stored beyond this recommended period may not perform optimally.

**Product** Please refer to our website for lists of M2 and M16 that CytoSpring carries. All products are sterile-filtered through a 0.2 µm filter. All products contain penicillin (60mg/L) and streptomycin (50mg/L) and are ready to use. *Please note: due to filtration the final volume can be 2 to 4ml less than initially prepared.*

## Reference

1. Quinn P., Barros C., Whittingham D.G. Preservation of hamster oocytes to assay the fertilizing capacity of human spermatozoa. *Reprod. Fertil.* 1982. 66:161-168.