

## M2 Medium

*Cell Culture Medium*

**Catalogue Number:** CE003/CE004

**Description:** M16 and M2 are modified Krebs-Ringer bicarbonate solutions, which are similar to Whitten's Medium. M16 Medium is one of the most common media for *in vitro* culture of preimplantation stage embryos. M16 contains pyruvate and lactate as energy sources since preimplantation embryos do not utilize glucose efficiently. M2 Medium is a further modification of M16 that substitutes HEPES buffer in place of some of the bicarbonate. M2 is used for collecting and handling embryos for prolonged periods outside a CO<sub>2</sub> incubator.

**Formulation:** Ready-to-use, sterile filtered solution

Catalogue Number	CE003 (g/L)	CE004 (g/L)
Product	M2 Medium	M16 Medium
<i>INORGANIC SALTS</i>		
CaCl <sub>2</sub> •2H <sub>2</sub> O	0.251	0.251
MgSO <sub>4</sub> (anhyd)	0.165	0.165
KCl	0.356	0.356
KH <sub>2</sub> PO <sub>4</sub>	0.162	0.162
NaCl	5.532	5.532
NaHCO <sub>3</sub>	0.35	2.101
<i>OTHER</i>		
Albumin, Bovine Fraction V	4.0	4.0
D-Glucose	1.0	1.0
HEPES	5.43	—
Phenol Red•Na	0.01	0.01
Pyruvic Acid•Na	0.036	0.036
Lactic Acid•Na	4.35	4.35
<i>SPECIFICATIONS</i>		
pH	7.4±0.3	7.4±0.3
Osmolality (mOsm)	285±25	285±15

**Pack Size:** 100 mL

**Storage/Stability:** 4°C for 6 months from the date of shipping.

**References:**

- Whitten, W.K. (1971) Embryo medium: Nutrient requirements for the culture of preimplantation embryos *in vitro*. *Adv. Biosci.*, 6: 129-141.
- Quinn, P., Barros, C., and Whittingham, D.G. (1982) Preservation of hamster oocytes to assay the fertilizing capacity of human spermatozoa. *J. of Reprod. Fertil.*, 66: 161-168.
- Hogan, B., Costantini, F., and Lacy, E. (1986) *Manipulating the Mouse Embryo*. Cold Spring Harbor Laboratory. Cold Spring Harbor, NY. Section G, pp. 249-252.

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