



# SAGE 1-Step™ GM-CSF

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Unique culture medium for poor prognosis patients



# SAGE 1-Step GM-CSF

**SAGE 1-Step GM-CSF is the world's first continuous culture medium containing the recombinant human cytokine GM-CSF.**

Recommended for patients who have<sup>1</sup>:

- Experienced recurrent clinical and biochemical pregnancy loss
- Experienced recurrent implantation failure
- Unexplained infertility

**GM-CSF facilitates the communication between embryo and endometrium, increasing the chances of successful implantation.**

- Hyaluronan in combination with HSA promotes embryo development and cryosurvival
- High Mg<sup>2+</sup> to Ca<sup>2+</sup> ratio limits detrimental stress-induced calcium influx into the embryo
- Optimized energy substrates D-glucose and L-lactate levels supporting uninterrupted continuous culture
- Use of bioactive L-lactate for better control of intracellular pH
- Designed to reduce ammonium build-up through the use of a stable glutamine source

**SAGE 1-Step GM-CSF is intended for in vitro culture of human embryos following fertilization until Day 5/6 of development. The medium can also be used for embryo transfer.**

## Product Specifications

- 2 ng/mL GM-CSF
- HSA: 5 mg/mL or SPS: 5 mg/mL
- HSA version contains hyaluronate
- Recommended pH (6% CO<sub>2</sub>): 7.3±0.1
- Osmolality (mOsm/kg): 257–273 mOsm/kg (265 mOsm/kg)
- Mouse embryo assay (MEA): >80% (BL Rate /1-cell)
- Shelf life is 26 weeks from date of manufacture
- Shelf life after opening is 7 days
- Ready to use

## Components

- GM-CSF
- Energy substrates
- EDTA
- Sodium hyaluronate
- Non-essential amino acids
- Gentamicin sulfate
- HSA / SPS
- Essential amino acids
- Phenol red
- Physiological salts



Product Code	Product Name	Volume (mL)	Article Description
77010003	SAGE 1-Step GM-CSF	3	With HSA and phenol red
77020003	SAGE 1-Step GM-CSF	3	With SPS and phenol red

1. Ziebe et al., A randomized clinical trial to evaluate the effect of granulocyte-macrophage colony-stimulating factor (GM-CSF) in embryo culture medium for in vitro fertilization. Fertil Steril. 2013 May;99(6):1600-9.