Miltenyi Biotec

StemMACS™ Nuclear eGFP mRNA

Order no. 130-101-119

Contents

1. Description
   - 1.1 Principle
   - 1.2 Background information
   - 1.2 Applications
2. Protocol: Dissolving of lyophilizate

1. Description

Components	**20 µg StemMACS™ Nuclear eGFP mRNA** encoding an enhanced green fluorescent protein (eGFP) linked to a nuclear localization signal. **1 mL Double-distilled Water,** RNase-free
Specifications	*In vitro* transcribed, polyadenylated and ARCA-capped mRNA that has been modified with pseudouridine and 5-methyl-cytidine to reduce the innate antiviral response to single-stranded RNA.
Formulation	Lyophilized from a filtered (0.2 µm) solution.
Storage	Store the lyophilized product at –20 °C. The expiration date is indicated on the label. After reconstitution, the product can be stored at –70°C for up to 3 month.
Quality control	mRNA size has been verified on an Agilent Bioanalyzer System. Nuclear eGFP expression after transfection was confirmed by flow cytometry and fluorescence microscopy.

1.1 Principle

The transient expression of key developmental regulators, recombinases or markers via mRNA transfection is a powerful tool for modulating cell fate. StemMACS mRNAs are highly pure, *in vitro*-transcribed mRNAs that have been carefully optimized and validated to ensure high level expression after transfection.

1.2 Background information

StemMACS Nuclear eGFP mRNA has been designed for transient expression of eGFP in the cell nucleus. The increased nuclear localization of the fluorescent signals facilitates detection by microscopy. StemMACS Nuclear eGFP mRNA is recommended as a positive control for mRNA transfections of nuclear factors.

1.3 Applications

- Positive control for mRNA transfections
- Optimization of mRNA delivery
- Localization control

2. Protocol: Reconstitution of lyophilizate

▲ RNA is susceptible to degradation by exogenous ribonucleases. Wear gloves, use RNase-free reagents, tubes, and pipette tips.

1. Dissolve StemMACS Nuclear eGFP mRNA in 200 µL of Double-distilled Water. Vortex thoroughly. The final concentration will be 0.1 µg/µL.
2. Briefly centrifuge to collect the content at the bottom of the tube.
3. Prepare aliquots and store at –70 °C to –80 °C. Do not subject aliquots to more than two freeze-thaw cycles.

For satisfactory transfection results, use a protocol that is optimized for your specific cell type.

Refer to **www.miltenyibiotec.com** for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit www.miltenyibiotec.com/local to find your nearest Miltenyi Biotec contact.

Miltenyi Biotec B.V. & Co. KG
Friedrich-Ebert-Straße 68, 51429 Bergisch Gladbach, Germany
Phone +49 2204 8306-0, Fax +49 2204 85197
macsde@miltenyi.com
www.miltenyibiotec.com

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