

PRODUCT INFORMATION



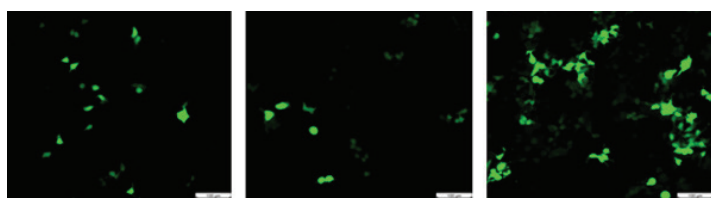
EGFP saRNA (Cap-1; 5mCTP)

Item No. 45065

Overview and Properties

Synonyms:	Enhanced GFP Self-amplifying RNA
Storage:	-80°C (as supplied)
Stability:	≥1 year
Supplied as:	A liquid
Storage Buffer:	RNase-free water
Concentration:	1 mg/ml
Ex./Em. Max:	488/509 nm

Image



EGFP saRNA (Cap-1; 5mCTP) fluorescent detection in 293T cells.

Description

EGFP self-amplifying RNA (saRNA) (Cap-1; 5mCTP) encodes enhanced GFP (EGFP), a variant of *A. victoria* GFP containing chromophore mutations that increase the sensitivity of the protein and displays excitation/emission maxima of 489/511 nm, respectively.¹ It is capped with the Cap-1 structure to increase translation efficiency and modified with 5-methylcytidine-5'-triphosphate (5mCTP) to reduce the host cell immune response. EGFP saRNA (Cap-1; 5mCTP) is based on the self-replicating Venezuelan equine encephalitis virus (VEEV), which results in stable expression of EGFP. It can be used as a control for the delivery and translation efficiency of RNA. Encapsulation of EGFP saRNA in lipid nanoparticles (LNPs) has been used for saRNA delivery and expression of EGFP *in vitro*.²

References

1. Zhang, G., Gurtu, V., and Kain, S.R. An enhanced green fluorescent protein allows sensitive detection of gene transfer in mammalian cells. *Biochem. Biophys. Res. Commun.* **227(3)**, 707-711 (1996).
2. Sun, Z., Liu, Y., Zhang, H., *et al.* A novel alphavirus-based saRNA platform for enhanced vaccination efficacy and organ-specific targeting. *Vaccine* **72**, 128055 (2026).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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