

PRODUCT INFORMATION



EPO mRNA (Cap-1; ψ UTP)

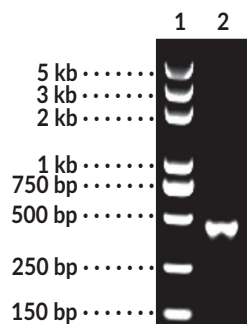
Item No. 41961

Overview and Properties

Storage: -80°C (as supplied)
Stability: ≥ 1 year
Supplied in: 1 mM Sodium citrate, pH 6.4
Concentration: 1 mg/ml

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: Markers
Lane 2: R1020 mRNA

EPO mRNA (Cap-1; ψ UTP) was analyzed by 1.5% native TAE agarose gel.

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.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

EPO mRNA encodes for erythropoietin (EPO), a glycoprotein necessary for red blood cell production.¹ It is capped using a co-transcriptional capping method, resulting in the naturally occurring Cap1 structure with high capping efficiency. EPO mRNA is also polyadenylated and modified with Ψ UTP to reduce the host cell immune response and enhance mRNA stability. Encapsulation of EPO mRNA (Cap-1; Ψ UTP) in lipid nanoparticles (LNPs) can be used for mRNA delivery and expression of EPO *in vitro* or *in vivo*.^{2,3}

References

1. Bunn, F.H. Erythropoietin. *Cold Spring Harb. Perspect. Med.* **3(3)**, a011619 (2024).
2. Maugeri, M., Nawaz, M., Papadimitriou, A., *et al.* Linkage between endosomal escape of LNP-mRNA and loading into EVs for transport to other cells. *Nat. Commun.* **10(1)**, 4333 (2019).
3. Hajj, K.A., Melamed, J.R., Chaudhary, N., *et al.* A potent branched-tail lipid nanoparticle enables multiplexed mRNA delivery and gene editing *in vivo*. *Nano Lett.* **20(7)**, 5167-5175 (2020).

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