Ver. HB230830

# ARCA Cap GMP-grade (100 mM)

# **Product description**

Anti-Reverse Cap Analog (ARCA) is a cap analog used during in vitro transcription for the generation of capped transcripts. ARCA is modified in a way that ensures incorporation in the forward orientation only. Anti-Reverse Cap Analog (ARCA) is a modified cap analog in which the 3' OH group (closer to m7G) is replaced with –OCH<sub>3</sub>. Because of this substitution, the RNA polymerase can only initiate transcription with the remaining hydroxyl group thus forcing ARCA incorporation in the forward orientation. As a result, unlike transcripts synthesized with conventional cap analog, 100% of the transcripts synthesized with ARCA at the 5' end are translatable leading to a strong stimulatory effect on translation.

This product is produced in accordance with GMP process requirements and provided in liquid form.

### Components

Components No.	Name	10681ES60	10681ES80
10681	ARCA Cap GMP-grade (100 mM)	100 μL	1mL

# **Specifications**

Molecular Formula	$C_{22}H_{31}N_{10}O_{18}P_3$ (free acid)
Molecular Weight	816.46 (free acid)
Concentration	$100 \pm 3$ mM
Purity	≥ 98%
Structure	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

## Storage

This product should be stored at  $-25^{\circ}$ C  $\sim -15^{\circ}$ C for two years.

#### **Notes**

1. For your safety and health, please wear personal protective equipment (PPE), such as laboratory coats and disposable gloves, when operating with this product.