

mRNA Cap 2'-O-Methyltransferase (50U/ul)

Catalog # CAE-V51H3



Product Details

mRNA CAP2-ymethyltransferase is a recombinant protein derived from vaccinia virus. The enzyme adds a methyl group at the 2'-O position of the first nucleotide adjacent to the cap structure at the 5' end of the RNA. The enzyme utilizes S-adenosylmethionine (SAM) as a methyl donor to methylate capped RNA (cap-0) resulting in a cap-1 structure. mRNA Cap 2'-O-Methyltransferase specifically requires RNA with an m7GpppN cap as substrate.

Application

mRNA cap-1 structure may improve expression during microinjection and transfection experiments.

Unit Definition

One unit is defined as the amount of enzyme required to methylate 10 pmoles of 80 nt long capped RNA transcript in 1 hour at 37°C.

Notes

RNA prepared using in vitro transcription and cap analog should be purified prior to use and resuspended in nuclease-free water. EDTA and salts should not be present in the solution.

Heating the RNA at 65°C for 5 minutes prior to incubation with the enzyme removes secondary structure on the 5' end of the transcript. Extend time to 10 minutes for transcripts with known highly structured 5' ends.

Formulation

Supplied as 0.2 µm filtered solution in 20 mM Tris, 100 mM NaCl, 1 mM TCEP, 0.1 mM EDTA, pH 8.0 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping and Storage

This product is supplied and shipped on dry ice.

This product is stable after storage at:

- The product MUST be stored at -20°C or lower upon receipt.
- -20°C for 12 months under sterile conditions.

Bioactivity

One unit is defined as the amount of enzyme required to methylate 10 pmoles of 80 nt long capped RNA transcript in 1 hour at 37°C.

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