



Creative Enzymes

Diagnostic Enzymes

mRNA Cap 2'-O-Methyltransferase, Recombinant

Product Information

Cat#	TRA-042
Specification	2.5KU/0.05mL, 10KU/0.2mL, 500KU/10mL, 5000KU/100mL, 50000KU/1000mL, 50KU/1mL
Description	mRNA Cap 2'-O-Methyltransferase is derived from a recombinant E. coli strain expressing the vaccinia virus enzyme. It specifically methylates the 2'-O position of the first nucleotide adjacent to the cap structure at the 5'-end of RNA, using S-adenosylmethionine (SAM) as a methyl donor to convert Cap 0 to Cap 1. The Cap 1 structure enhances translation efficiency and improves mRNA expression in transfection and microinjection experiments. This enzyme requires RNA bearing an m7GpppN cap structure as substrate and does not act on RNA with pN, ppN, pppN, or GpppN termini.
Unit Definition	One unit is defined as the amount of enzyme required to methylate 10 pmol of an 80-nt capped RNA transcript within one hour at 37°C.
Storage	Store at -25°C to -15°C (avoid repeated freeze-thaw cycles).