Product Data Sheet

Product Name: Cy5 Fluc-eGFP mRNA(5’CAP)
Cat. No.: GM10015

Chemical Properties

Purity	Extinction Coefficient	
Formula	M.Wt	
Salt Form	Concentration	
Buffer	Storage	-40°C or below
Synonyms	Backbone	
Base Analog	Sugar Type	
Nucleotide Category		

Background

Cy5 Fluc-eGFP mRNA (5'CAP) is a labeled luciferase green fluorescent protein mRNA transcribed in vitro by simulating mRNA processing in eukaryotes. Cy5 Fluc-eGFP mRNA (5'CAP) carries the Cy5 label(Cy5-UTP: UTP=3:1 (molar ratio)), Cap 1 cap structure, and poly (A) tail, increasing mRNA stability and translation efficiency[1].

Fluc-eGFP fluorescent protein is a fluorescent reporter gene commonly used in molecular biology research. This product connects firefly luciferase mRNA and green fluorescent protein eGFP mRNA through Linker and can be used for the detection of two reporter gene experiments. Cy5 Fluc-eGFP mRNA (5'CAP) can directly express proteins in the cytoplasm without relying on promoters, with a faster protein expression rate than transfection with deoxyribonucleotides. The protein expression level is directly related to the mRNA transfection level, and there is no risk of gene integration.

After transfection with Cy5 Fluc-eGFP mRNA (5'CAP), cells can express strong and bright green fluorescent protein eGFP and firefly luciferase protein. The excitation/emission wavelengths of eGFP are 488/509nm, respectively; firefly luciferase catalyzes the spontaneous fluorescence and chemiluminescence of luciferin or fatty aldehydes in organisms, with wavelengths of approximately 550-570nm[2]. Cy5 is a commonly used

Caution: Product has not been fully validated for medical applications. For research use only.
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cyanine fluorescent dye, with maximum excitation/emission wavelengths of 650/670nm, respectively.

References:

[1]. JoÃo M M LeitÃo, Joaquim C G Esteves da Silva. Firefly luciferase inhibition. 2010 Oct 5;101(1):1-8. doi: 10.1016/j.jphotobiol.2010.06.015. Epub 2010 Jul 3.

[2]. Jemielity J, Fowler T, Zuberek J, et al. Novel "anti-reverse" cap analogs with superior translational properties. RNA. 2003; 9(9):1108-1122.