

### mRNA-eGFP-Firefly Luciferase

The mRNA-eGFP-Firefly Luciferase is a ready-to-use mRNA product that combines enhanced green fluorescent protein (eGFP) with Firefly Luciferase (Fluc). The open reading frame (ORF) of eGFP is derived from the jellyfish *Aequorea victoria* and emits green fluorescence (507 nm) upon excitation at 488 nm, making it suitable for real-time fluorescent microscopy imaging. The Fluc gene, originating from the firefly *Photinus pyralis*, encodes an enzyme that catalyzes the oxidation of the substrate D-luciferin to generate a bioluminescent signal with an emission wavelength of approximately 560 nm.

Name	Cat.No	Scale	State
mRNA-eGFP-Firefly Luciferase	HX-mRNA023	1mg	Lyophilized/Liquid

**Concentration:** 1mg/mL

**Storage Buffer:** ddH<sub>2</sub>O pH=7.0

**mRNA length:** 2673 nt

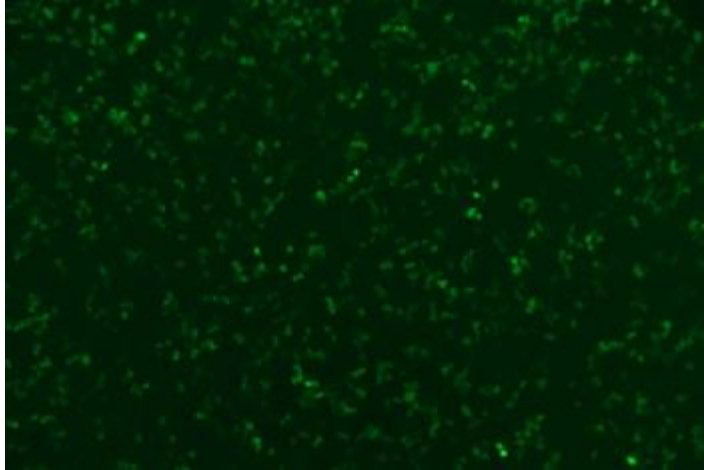
**Amino acid sequence size:** 791 kDa

**Handling and Storage:** store at – 80°C for long term

**Cell Expression result:**

Cell Line: 293T Culture Plate: 96-well plate Cell Confluency: 80%

Transfection Dose: 200 ng per well



**Amino acid sequence:**

MVSKGEELFTGVVPILVELDGDVNGHKFSVSGEGEGDATYGKLTCLKFICTTGKLPVP  
WPTLVTTLTLYGVQCFSRYPDHMKQHDFFKSAMPEGYVQERTIFFKDDGNYKTRAEVK  
FEGDTLVNRIELKGIDFKEDGNILGHKLEYNYNSHNVYIMADKQKNGIKVNFKIRHNE  
DGSVQLADHYQQNTPIGDGPVLLPDNHYLSTQSALS KDPNEKRDHMLLEFVTAAG  
ITLGMDELYKSSMEDAKNIKKGPAPFYPLEDGTAGEQLHKAMKRYALVPGTIAFTDAHI  
EVDITYAEYFEMSVRLAEAMKRYGLNTNHRIVVCSENSLQFFMPVLGALFIGVAVAPA  
NDIYNERELLNSMGISQPTVVFVSKKGLQKILNVQKKLPPIIQKIIIMDSKTDYQGFQSM  
YTFVTSHLPPGFNEYDFVPESFDRDKTIALIMNSSGSTGLPKGVALPHRTACVRFSHA  
RDPIFGNQIIPDTAILSVPFHHGFGMFTTLGYLICGFRVFLMYRFEELFLRSLQDYKI  
QSALLVPTLFSFFAKSTLIDKYDLSNLHEIASGGAPLSKEVGEAVAKRFHLPGIRQGYG  
LTETTSAILITPEGDDKPGAVGKVVPFPEAKVVDLDTGKTLGVNQRGELCVRGPMIMS  
GYVNNPEATNALIDKDGWLHSGDIAYWDEDEHFFIVDRLKSLIKYKGYQVAPAELESI  
LLQHPNIFDAGVAGLPDDDAGELPAVVVLEHGKTMTEKEIVDYVASQVTTAKKLRG  
GVVFDVDEVPKGLTGKLDARKIREILIKAKKGGKIAV