

Luciferin 4-Monooxygenase Firefly Recombinant, Active

Item Number	rAP-1446
Synonyms	Luciferase-like monooxygenase, LUC, EC 1.13.12.7.
Description	Luciferase produced in E.Coli is a single, non-glycosylated polypeptide chain containing 335 amino acids (1-311 a.a) and having a molecular mass of 38.5kDa. Luciferase is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.
Uniprot Accession Number	P08659
Amino Acid Sequence	MGSSHHHHH SSGLVPRGSH MGSMTSKVY DPEQRKRMIT GPQWWARCKQ MNVLDSFINY YDSEK-HAENA VIFLHGNAAS SYLWRHVVPV IEPVARCIIP DLIGMGKSGK SGNGSYRLLD HYKYLTAWFE LLNLPKKIIF VGHDWGACLA FHYSYHQDK IKAIVHAESV VDVIESWDEW PDIEEDIALI KSEEGEKMVL ENNFFVETML PSKIMRKLEP EEFAAYLEPF KEKGEVRRPT LSWPREIPLV KGGKPDVVQI VRNYNAYL-RA SDDLPKMFIE SDPGFFSNAI VEGAKKFPNT EFKVKGLHF SQEDAPDEMG KYIKSFVERV LKNEQ.
Source	Escherichia Coli.
Physical Appearance and Stability	Sterile Filtered colorless solution. Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.
Formulation and Purity	The Luciferase solution (0.5mg/ml) contains 20mM Tris-HCl (pH8.0), 1mM DTT and 10% glycerol. Greater than 95.0% as determined by SDS-PAGE.
Application	
Solubility	
Biological Activity	Specific activity is $\geq 1 \times 10^9$ light units/mg. One luciferase enzyme units will produce one Relative Light Unit (RLU) at pH7.5 at 25°C.
Shipping Format and Condition	Lyophilized powder at room temperature.

Optimal dilutions should be determined by each laboratory for each application. The listed dilutions are for recommendation only and the final conditions should be optimized by the ender users! This product is sold for **Research Use Only**