
Product Data Sheet

Product Name: Luciferase Firefly, Active

Cat. No.: GP21892

Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Luciferase-like monooxygenase; LUC; EC 1.13.12.7.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGSMTSKVY DPEQRKRMIT GPQWWARCKQ MNVLDSEFINY YDSEKHAENA VIFLHGNAAS SYLWRHVPH IEPVARCIIP DLIGMGKSGK SGNGSYRLLD HYKYLTAWFE LLNLPKKIIF VGHDWGACLA FHYSYEHQDK IKAIVHAESV VDVIESWDEW PDIEEDIALI KSEEGEKMVL ENFFVETML PSKIMRKLEP EEFAAYLEPF KEKGEVRRPT LSWPREIPLV KGGKPDVVQI VRNYNAYLRA SDDLPKMFIE SDPGFFSNAI VEGAKKFPNT EFVKVKGLHF SQEDAPDEMG KYIKSFVERV LKNEQ.		
Formulation	The Luciferase solution (0.5mg/ml) contains 20mM Tris-HCl (pH8.0), 1mM DTT and 10% glycerol.		

Introduction

Luciferase is a general term for the class of oxidative enzymes used in bioluminescence and is distinct from a photoprotein. Luciferase catalyzes a bioluminescent reaction which involves the substrate luciferin as well as Mg²⁺ and ATP, produces green light with a wavelength of 562 nm. Luciferase from firefly is broadly used as a reporter for studying gene regulation and function, and for pharmaceutical screening.

Biological Activity

Specific activity is >1x10⁹ light units/mg. One luciferase enzyme units will produce one Relative Light Unit (RLU) at pH7.5 at 25°C.

Stability

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%

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

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.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA