

Luciferase, 1-311aa, Renilla reniformis, His-tag, E.coli (Bioactivity Validated)

Cat.NO.: TP02856

3th Edition

Synonyms:Luciferase

Description:LUC, also known as luciferase. LUC catalyzes the oxidative decarboxylation of coelenterazine in the presence of dissolved oxygen to yield oxyluciferin, CO₂, and blue light. In vivo, the excited state luciferin-luciferase complex undergoes the process of nonradiative energy transfer to an accessory protein, green fluorescent protein, which results in green bioluminescence. In vitro, it emits blue light in the absence of any green fluorescent protein. Recombinant renilla reniformis LUC, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.

Form:Liquid. 20mM Tris-HCl (pH8.0) containing 1mM DTT, 10% glycerol

Molecular Weight:38.5 kDa (335aa) Confirmed by MALDI-TOF

Sequences:

MGSSHHHHHSSGLVPRGSHMGSHMTSKVYDPEQRKRMITGPQWWARCKQMNVLDSFINYYDSEKHAENAVIFL
HGNAASSYLWRHVPHIEPVARCIIPDLIGMGKSGKSGNGSYRLLDHYKYLTAWFELLNLPKKIIFVGHDWGACLAFL
HYSYEHQDKIKAIVHAESVVDVIESWDEWPDIEEDIALIKSEEKGMVLENNFFVETMLPSKIMRKLEPEEFAAYLEPF
KEKGEVRRPTLSWPREIPLVKGGKPDVVQIVRNYNAYLRASDDLPKMFIESDPGFFSNAIVEGAKKFPNTEFVKVKG
LHFSQEDAPDEMGKYIKSFVERVLKNEQ

Purity:> 95% by HPLC

Concentration:0.5 mg/ml (determined by Bradford assay)

Endotoxin Level:<1.0 EU per 1 ug of protein (determined by LAL method)

Storage:Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.