Recombinant renilla reniformis Luciferase protein

Catalog Number: ATGP3581

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-311aa

UniProt No.
P27652

NCBI Accession No.
AAA29804.1

Alternative Names
Luciferase

PRODUCT SPECIFICATION

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

Concentration
0.5mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol

Purity
> 95% by SDS-PAGE

Endotoxin level
< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity
Specific activity is >1X10^9 lightunit/mg. One luciferase enzymeunit will produce one Relative Light Unit (RLU) at pH7.5 at 25C.

Tag
His-Tag

Application
SDS-PAGE, Enzyme Activity

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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Description

LUC, also known as luciferase. LUC catalyzes the oxidative decarboxylation of coelenterazine in the presence of dissolvedoxygen to yield oxyluciferin, CO2, and blue light. In vivo, the excited state luciferin-luciferase complex undergoes the process of noradiative 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.

Amino acid Sequence

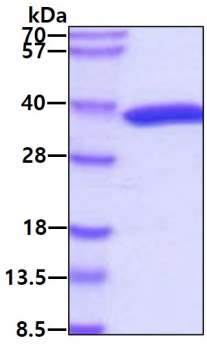
<MGSSHHHHHH SSGLVPRGSH MGSH>MTSKVY DPEQRKRMIT GPQWWARCKQ MNVLDSFINY YDSEKHAENA VIFLHGNAAS SYLWRHVVPH IEPVARCIIP DLIGMGKSGK SGNGSYRLLD HYKYLTAWFE LLNLPKKIIF VGHDWGACLA FHYSYEHQDK IKAIVHAESV VDVIESWDEW PDIEEDIALI KSEEGEKMVL ENNFFVETML PSKIMRKLEP EEFAAYLEPF KEKGEVRRPT LSWPREIPLV KGGKPDVVQI VRNYNAYLRA SDDLPKMFIE SDPGFFSNAI VEGAKKFPNT EFVKVKGLHF SQEDAPDEMG KYIKSFVERV LKNEQ

General References

Lorenz WW., et al. (1991) Proc Natl Acad Sci U S A. 88(10):4438-42.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.