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32-6837: Luciferase Firefly, Active

Application : Functional Assay
Alternative Name : Luciferase-like monooxygenase, LUC, EC 1.13.12.7.

Description

Source: Escherichia Coli.
Sterile Filtered colorless solution.
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.
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.

Product Info

Amount :	1 µg / 5 µg
Purification :	Greater than 95.0% as determined by SDS-PAGE.
Content :	The Luciferase solution (0.5mg/ml) contains 20mM Tris-HCl (pH8.0), 1mM DTT and 10% glycerol.
Storage condition :	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.
Amino Acid :	MGSSHHHHHH SSGLVPRGSH MGSHMTSKVY 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.

Application Note

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

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