

## Active Recombinant Firefly Luciferase Protein (1-550), N-His-tagged

**Cat. No.** Luciferase-787F    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant firefly Luciferase (1-550), fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.                                                                                                                                                                                                                                                                              |
| <b>Species</b>          | Firefly                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>ProteinLength</b>    | 1-550                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Description</b>      | Luciferase is a generic term for the class of oxidative enzymes used in bioluminescence and is distinct from a photoprotein. Luciferase catalyzes a bioluminescent reaction which requires the substrate luciferin as well as Mg <sup>2+</sup> and ATP, produces green light with a wavelength of 562 nm. Luciferase from firefly is widely used as a reporter for studying gene regulation and function, and for pharmaceutical screening. |
| <b>Form</b>             | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Bio-activity</b>     | Specific activity is 1×10 <sup>10</sup> lightunit/mg. One luciferase enzymeunit will produce one Relative Light Unit (RLU) at 25 centigrade.                                                                                                                                                                                                                                                                                                |
| <b>Molecular Mass</b>   | 63 kDa (571aa) confirmed by MALDI-TOF                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>AA Sequence</b>      | MEDAKNIKKGPAPFYPLEDGTAGEQLHKAMKRYALVPGTIAFTDAHIEVNITYAEYFE                                                                                                                                                                                                                                                                                                                                                                                  |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

MSVRLAEAMKRYGLNTNHRIVVCSSENSLQFFMPVLGALFIGVAVAPANDIYNERELL  
 NSMNISQPTVVVFVSKKGLQKILNVQKKLPPIQKIIIMDSKTDYQGFQSMYTFVTSHLPP  
 GFNEYDFVPESFDRDKTIALIMNSSGSTGLPKGVALPHRTACVRFSHARDPIFGNQII  
 PDTAILSVPFHHGFGMFTTLGYLICGFRVVLMYRFEELFLRSLQDYKIQSALLVPTL  
 FSFFAKSTLIDKYDLSNLHEIASGGAPLSKEVGEAVAKRFHLPGIRQGYGLTETTSAILI  
 TPEGDDKPGAVGKVVPPFEAKVVDLDTGKTLGVNQRGELCVRGPMIMSGYVNNPE  
 ATNALIDKDGWLHSGDLAYWDEDEHFFIVDRLKSLIKYKGYQVAPAELESILLQHPNI  
 FDAGVAGLPDDDAGELPAAVVLEHGKTMTEKEIVDYVASQVTTAKLRGGVVFVD  
 EVPKGLTGKLDARKIREILIKAKKGGKSKL

**Purity** > 90% by SDS-PAGE

**Applications** SDS-PAGE, Enzyme Activity

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

**Concentration** 1 mg/mL (determined by Bradford assay)

**Storage Buffer** 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol

## GENE INFORMATION

**Official Symbol** Luciferase

**Synonyms** Luciferase; Luciferin 4-monooxygenase, LuC

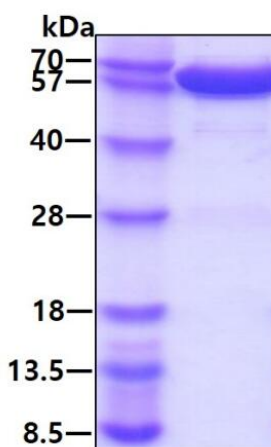
**UniProt ID** [A3KBZ5](#)

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SDS-PAGE



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