

**Luciferase, 1-550aa, Firefly, His tag, E.coli**

**Cat.NO.: TP02857**

3th Edition

**Synonyms:**Luciferin 4-monoxygenase, LUC.

**Description:**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.

**Form:**Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT,10% glycerol.

**Molecular Weight:**62.9 kDa (571aa), confirmed by MALDI-TOF.

**Sequences:**

MGSSHHHHHSSGLVPRGSHMMEDAKNIKKGPAPFYPLEDGTAGEQLHKAMKRYALVPGTIAFTDAHIEVDITYAE  
YFEMSVRLAEAMKRYGLNTNHRIVVCSENSLQFFMPVLGALFIGVAVAPANDIYNERELLNSMGISQPTVVVSKKG  
LQKILNVQKKLPPIIQKIIIMDSKTDYQGFQSMYTFVTSHLPPGFNEYDFVPESFDRDKTIALIMNSSGSTGLPKGVALP  
HRTACVRFSHARDPIFGNQIIPDTAILSVPFHHGFGMFTTLGYLICGFRVVLMYRFEELFLRSLQDYKIQSALLVPT  
LFSFFAKSTLIDKYDLSNLHEIASGGAPLSKEVGEAVAKRFHLPGIRQGYGLTETTSAILITPEGDDKPGAVGKVVPPF  
EAKVVDLDTGKTLGVNQRGELCVRGPMIMSGYVNNPEATNALIDKDGWLHSGDIAYWDEDEHFFIVDRLKSLIKYK  
GYQVAPAELESILLQHPNIFDAGVAGLPDDDAGELPAVVVLEHGKTMTEKEIVDYVASQVTTAKKLRGGVVFVDEV  
PKGLTGKLDARKIREILIKAKKGGKIAV

**Purity:**> 95% by HPLC

**Concentration:**1 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.