

## Recombinant Firefly Luciferase, His tagged, Protein G Labeled

**Cat. No.** Luciferase-04F    **Lot. No.** (See product label)

### SPECIFICATION

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>  | Protein G labeled recombinant firefly luciferase with His tag was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Species</b>           | Firefly                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Source</b>            | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Conjugation/Label</b> | Protein G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Description</b>       | <p>Antibody Binding Firefly Luciferase is a Protein G-Firefly Luciferase (protein G-Fluc) fusion protein. It consists of protein G and firefly luciferase (Fluc), while the two proteins connect via a short peptide. Protein G tightly binds to IgG molecules from rabbit, human, mouse, goat, sheep, cow, and rat. In addition, protein G conjugates are especially valuable for detecting antibodies that bind poorly to protein A, such as human IgG3, mouse IgG1, and immunoglobulins from rat, sheep, and horse. Firefly luciferase (Fluc) is a light-emitting enzyme to estimate gene expression. It catalyzes the oxidation of firefly luciferin, allowing its detection by a luminometer. As an antibody binding luciferase, protein G-Fluc can avoid harmful labeling of the detecting antibody. Because staining protocols vary with application, the appropriate dilution of Antibody Binding Firefly Luciferase should be determined empirically.</p> |
| <b>Form</b>              | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Molecular Mass</b>    | 85.3 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Purity</b>            | ≥ 90% by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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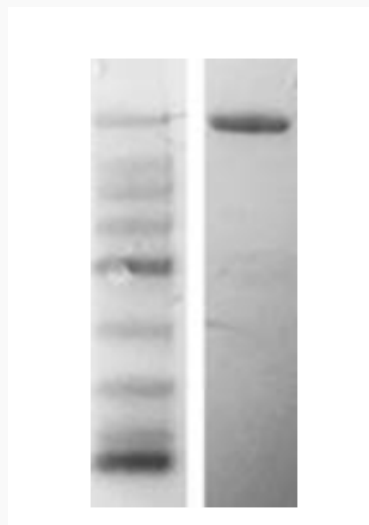
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|                       |                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>Applications</b>   | In vitro research use only                                                                                          |
| <b>Storage</b>        | Short Term Storage: -20 centigrade Long Term Storage: -20 centigrade Avoid freeze/thaw cycle. Aliquot upon arrival. |
| <b>Storage Buffer</b> | 50 mM sodium phosphate, 100 mM NaCl, 1 mM DTT, pH7.2, 50% glycerol                                                  |
| <b>Concentration</b>  | 0.5-1.0 mg/mL                                                                                                       |
| <b>Shipping</b>       | Cold packs                                                                                                          |

## GENE INFORMATION

|                   |                                                     |
|-------------------|-----------------------------------------------------|
| <b>Synonyms</b>   | Luciferase; Luciferin 4-monooxygenase; EC:1.13.12.7 |
| <b>UniProt ID</b> | <a href="#">Q27757</a>                              |

**WB**



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