



RayBiotech, Inc.

3607 Parkway Lane suite 200

Norcross, GA 30092

Tel: 770-729-2992, 1-888-494-8555

Fax: 770-206-2393

Website: www.raybiotech.com

Email: info@raybiotech.com

Recombinant *Renilla reniformis* Luciferase

Catalog No.	Size	Species
RB-15-0003P	10, 50, 100 µg	<i>Renilla reniformis</i>

Synonyms

RLuc.

Description

Luciferase belongs to the oxidative enzymes used in bioluminescence and is different from the photoprotein. In the luciferase reaction, luciferase acts on the appropriate substrate luciferin and light is emitted. A variety of organisms regulate their light production using different luciferases. The well-studied luciferases are mainly from fireflies and *Renilla*.

Preparation

The full-length of *Renilla* luciferase gene was cloned and expressed in *Escherichia coli*. The protein has been fused to a 6× histidine tag at its C-terminus. It was affinity-purified by histidine-tag column.

Source

Recombinant histidine-tagged protein, purified from *E. coli*.

Predicted Molecular Mass

~30 kDa with the 6× histidine tag.

Formulation

Fine white powder, lyophilized. *Renilla* luciferase protein was constituted in a 0.2 µm filtered phosphate-buffered saline (1x PBS) before lyophilized.

Solubility

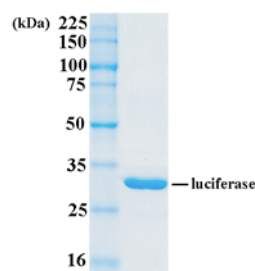
The product is soluble in 1× PBS.

Storage

The protein is stable at -20 to -70 °C in a manual defrost freezer. **Avoid repeated freeze-thaw cycles.**

Purity

>95%, determined by SDS-PAGE and stained with Coomassie blue. See gel image below.



Applications

	Yes	No	Not Determined
ELISA	√		
Western blotting	√		
Dot blotting	√		
Protein array	√		
Activity	√		
Others			√

Note: other applications are not tested yet. Optimal working concentrations should be determined by each laboratory for each application.

References

1. Nakatsu T, et al. (2006). "Structural basis for the spectral difference in luciferase bioluminescence". *Nature* 440 (7082): 372–6.
2. Greer LF, Szalay AA (2002). "Imaging of light emission from the expression of luciferases in living cells and organisms: a review". *Luminescence* 17 (1): 43–74.
3. Steghens JP, et al (1998). "Firefly luciferase has two nucleotide binding sites: effect of nucleoside monophosphate and CoA on the light-emission spectra". *Biochem. J.* 336 (Pt 1): 109–13.
4. Baldwin TO (1996). "Firefly luciferase: the structure is known, but the mystery remains". *Structure* 4 (3): 223–8.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**