



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 Western Blotting Control

Catalog number:	Size:	Species:
RB-15-0003P-WBC	100 μ L (20 lanes)	<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 recombinant protein has been engineered an in-framed 6 \times histidine tag at its C-terminus. It was purified by immobilized metal ion affinity chromatography (IMAC).

Source

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

Predicted Molecular Mass

~30 kDa with the 6 \times histidine tag.

Formulation

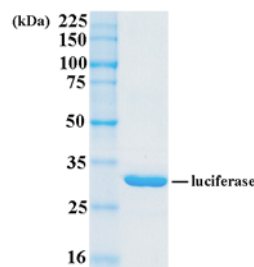
Liquid. Supplied in 1 \times SDS Loading Buffer (60 mM Tris-HCl, pH 6.8, 2% SDS, 10% glycerol, 5% 2-mercaptoethanol, 0.002% bromphenol blue).

Storage

The protein is stable at -20 $^{\circ}$ C freezer.

Purity

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



Applications

Before use, heat the WBC control at 95 $^{\circ}$ C for 5 minutes. Spin down the sample and load 5 μ L per lane onto SDS-PAGE gel.

References

1. Nakatsu T, Ichiyama S, Hiratake J, Saldanha A, Kobashi N, Sakata K, Kato H (March 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, Min KL, Bernengo JC (November 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 (March 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.**