

## Renilla Luciferase Rabbit mAb

Catalog No: #48665



Package Size: #48665-1 50ul #48665-2 100ul

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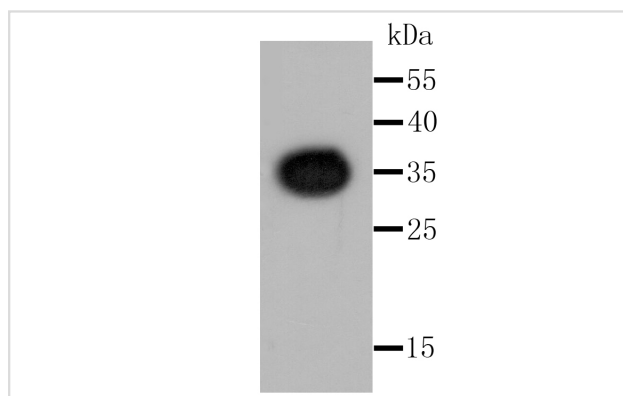
## Description

|                       |                                                                             |
|-----------------------|-----------------------------------------------------------------------------|
| Product Name          | Renilla Luciferase Rabbit mAb                                               |
| Host Species          | Recombinant Rabbit                                                          |
| Clonality             | Monoclonal antibody                                                         |
| Clone No.             | SR07-830                                                                    |
| Purification          | ProA affinity purified                                                      |
| Applications          | WB, ICC, IF                                                                 |
| Species Reactivity    | Sea pansy                                                                   |
| Immunogen Description | Recombinant protein                                                         |
| Other Names           | Renilla luciferin 2 monooxygenase antibody Renilla type luciferase antibody |
| Accession No.         | Swiss-Prot#:P27652                                                          |
| Formulation           | 1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.        |
| Storage               | Store at -20°C                                                              |

## Application Details

WB: 1:500-1:2,000

## Images



Western blot analysis of Renilla Luciferase on luciferase recombinant protein lysate using anti-Renilla Luciferase antibody at 1/1,000 dilution.

## Background

Upon binding the substrate, the enzyme catalyzes an oxygenation, producing a very short-lived hydroperoxide that cyclizes into a dioxetanone structure, which collapses, releasing a CO<sub>2</sub> molecule. The spontaneous breakdown of the dioxetanone releases the energy (about 50 kcal/mole) that is necessary to generate the excited state of the coelenteramide product, which is the singlet form of the monoanion. In vivo the product undergoes the process of nonradiative energy transfer to an accessory protein, a green fluorescent protein (GFP), which results in green bioluminescence. In vitro, in the absence of GFP, the product emits blue light.

## References

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1. Shen L et al. Safe and Sensitive Antiviral Screening Platform Based on Recombinant Human Coronavirus OC43 Expressing the Luciferase Reporter Gene. *Antimicrob Agents Chemother* 60:5492-503 (2016).
2. Loening AM et al. Crystal structures of the luciferase and green fluorescent protein from *Renilla reniformis*. *J Mol Biol.* 374(4):1017-28 (2007).

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Note: This product is for in vitro research use only and is not intended for use in humans or animals.