Product Name: Renilla Luciferase (18F5) Rabbit Monoclonal Antibody
Catalog #: AMRe17015

Summary

Production Name	Renilla Luciferase (18F5) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Renilla Luciferase

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Purification	Affinity purification

Immunogen

Gene Name	LUCI
Alternative Names	Renilla-type luciferase; Renilla luciferin 2 monooxygenase;
Gene ID	
SwissProt ID	P27652.

Application

Dilution Ratio	WB 1:500-1:2000
Molecular Weight	36kDa

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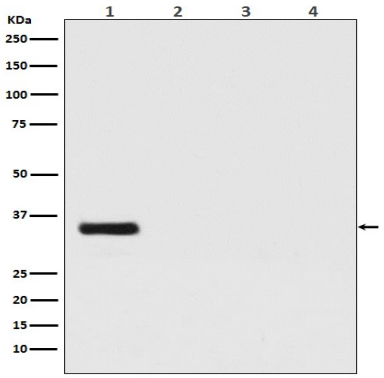
Background

Renilla luciferin + O2 = oxidized Renilla luciferin + CO2 + light. The Green Renilla luciferase is a 36kDa protein produced by a derivative of the wild type Renilla luciferase gene from the sea pansy, Renilla reniformis. Compared to the wild type luciferase, Green Renilla is more stable in serum and has an the emission spectrum that is shifted toward the green region. The protein provides extremely bright flash signal that decays rapidly. 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(2) 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.

Research Area

Image Data



Western blot analysis of Renilla Luciferase expression in (1) Renilla Luciferase transfected 293 cell lysate; (2) HeLa cell lysate; (3) NIH/3T3 cell lysate; (4) C6 cell lysate.

Note

For research use only.