Product name:	Renilla Luciferase (18F5) Rabbit Monoclonal Antibody
Cat number:	MABN17015
Conjugate:	Unconjugated
Size:	100µL
Clone:	Monoclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	A synthetic peptide of Renilla Luciferase
Reactivity:	Other
Applications:	WB 1:1000-1:5000,ICC/IF 1:200-1:1000,FC 1:50-1:100
Molecular Weight:	36kDa
Purification:	Affinity purification
Form:	Liquid
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.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.
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.