

RB1CC1 Antibody / RB1-inducible coiled-coil protein 1 (FY12607)

Catalog No.	Formulation	Size
FY12607	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

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Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	Q8TDY2
Applications	Western Blot : 0.25-0.5ug/ml Immunohistochemistry : 2-5ug/ml Immunofluorescence : 5ug/ml Immunocytochemistry/Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This RB1CC1 antibody is available for research use only.

Description

RB1CC1 antibody detects RB1-inducible coiled-coil protein 1, also known as FIP200, a multifunctional scaffolding protein that regulates autophagy, cell cycle progression, and tumor suppression. RB1CC1 functions as a key component of the ULK1 autophagy initiation complex and interacts with numerous cellular regulators including RB1, ATG proteins, and kinases involved in growth control. The RB1CC1 antibody is widely used in cell biology, cancer, and autophagy research to study cellular homeostasis, stress responses, and tumorigenic signaling.

RB1CC1 is encoded by the RB1CC1 gene located on human chromosome 8q11.23. The protein is approximately 1,594 amino acids long and contains coiled-coil domains that mediate protein-protein interactions, along with a C-terminal region necessary for autophagosome formation. It serves as a molecular scaffold that integrates signals from growth factors, energy status, and nutrient availability to coordinate autophagy and cell proliferation.

The RB1CC1 antibody detects a 200 kilodalton protein by western blot and shows both cytoplasmic and perinuclear

localization under immunofluorescence. RB1CC1 forms a complex with ULK1, ATG13, and ATG101, controlling the initiation of autophagosome formation under starvation conditions. It is required for proper vesicle nucleation and lipidation of LC3, central steps in autophagy induction.

In addition to its role in autophagy, RB1CC1 interacts with the retinoblastoma tumor suppressor RB1 to inhibit cell cycle progression, contributing to tumor suppression. Loss of RB1CC1 function leads to impaired autophagy, accumulation of damaged organelles, and increased susceptibility to oncogenic transformation. Conversely, overexpression of RB1CC1 promotes survival during stress and supports metabolic adaptation.

RB1CC1 participates in neuronal homeostasis, cardiac development, and immune regulation, emphasizing its broad physiological relevance. Dysregulation is associated with cancer, neurodegenerative diseases, and cardiomyopathies. NSJ Bioreagents provides a validated RB1CC1 antibody optimized for western blot, immunofluorescence, and co-immunoprecipitation, supporting studies in autophagy, tumor suppression, and cellular stress adaptation.

Application Notes

Optimal dilution of the RB1CC1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human RB1CC1 recombinant protein (Position: E366-R1393) was used as the immunogen for the RB1CC1 antibody.

Storage

After reconstitution, the RB1CC1 antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.