Anti-RIP3 Antibody

ER1902-67

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IHC-P, FC
Molecular Wt:	Predicted band size: 57 kDa

Description: Receptor-interacting serine/threonine-protein kinase 3 is an enzyme that in humans is encoded by the RIPK3 gene. The product of this gene is a member of the receptor-interacting protein (RIP) family of serine/threonine protein kinases, and contains a C-terminal domain unique from other RIP family members. The encoded protein is predominantly localized to the cytoplasm, and can undergo nucleocytoplasmic shuttling dependent on novel nuclear localization and export signals. Essential for necroptosis, a programmed cell death process in response to death-inducing TNF-alpha family members. Upon induction of necrosis, RIPK3 interacts with, and phosphorylates RIPK1 and MLKL to form a necrosis-inducing complex. RIPK3 binds to and enhances the activity of three metabolic enzymes: GLUL, GLUD1, and PYGL. These metabolic enzymes may eventually stimulate the tricarboxylic acid cycle and oxidative phosphorylation, which could result in enhanced ROS production.

Immunogen: Synthetic peptide within Human RIP3 aa 380-420.

Positive control: Human lung carcinoma tissue lysate, human placenta tissue lysate , SW620, HT-29 cell lysates.

Subcellular location: Cytoplasm, cytosol, Nucleus.

Database links: SwissProt: Q9Y572 Human | Q9QZL0 Mouse | Q9Z2P5 Rat

Recommended Dilutions:

WB	1:500-1:2,000
IHC-P	1:50-1:200
FC	1:50-1:100

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Images

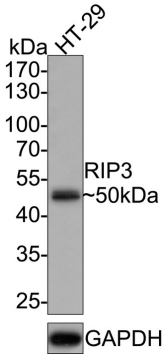

Fig1: Western blot analysis of RIP3 on HT-29 cell lysates with Rabbit anti-RIP3 antibody (ER1902-67) at 1/1,000 dilution.

Lysates/proteins at 10 µg/Lane.

Predicted band size: 57 kDa
Observed band size: 50 kDa

Exposure time: 2 minutes;

12% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ER1902-67) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:100,000 dilution was used for 1 hour at room temperature.

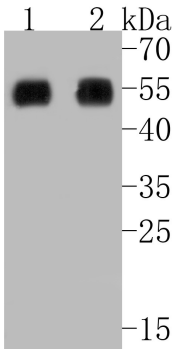

Fig2: Western blot analysis of RIP3 on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ER1902-67, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:5,000 dilution was used for 1 hour at room temperature.
Positive control:
Lane 1: human lung carcinoma tissue lysate
Lane 2: human placenta tissue lysate

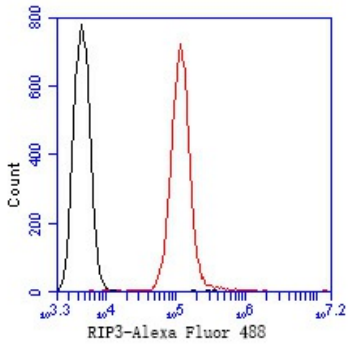

Fig3: Flow cytometric analysis of RIP3 was done on SW620 cells. The cells were fixed, permeabilized and stained with the primary antibody (ER1902-67, 1/50) (red). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor 488-conjugated Goat anti-Rabbit IgG Secondary antibody at 1/1000 dilution for 30 minutes.Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Background References

1. Liu Y. et. al. RIP1/RIP3-regulated necroptosis as a target for multifaceted disease therapy (Review). Int J Mol Med. 2019 Sep
2. Zhang T. et. al. CaMKII is a RIP3 substrate mediating ischemia- and oxidative stress-induced myocardial necroptosis. Nat Med. 2016 Feb