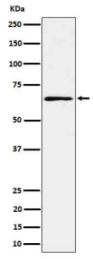
RIPK2 Antibody / Receptor interacting serine threonine kinase 2 [clone 31R02] (FY13052)

Catalog No.	Formulation	Size
FY13052	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	31R02
Purity	Affinity chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	O43353
Applications	Western Blot : 1:500-1:2000
Limitations	This RIPK2 antibody is available for research use only.



Western blot analysis of RIPK2 in human K562 cell lysate using RIPK2 antibody. Expected molecular weight ~61 kDa.

Description

RIPK2 antibody detects Receptor interacting serine threonine kinase 2, encoded by the RIPK2 gene. This cytoplasmic kinase belongs to the RIP kinase family and is a critical mediator of innate immune signaling downstream of nucleotide

binding oligomerization domain (NOD) receptors. By integrating microbial sensing with downstream NF kappa B and MAP kinase activation, RIPK2 helps coordinate proinflammatory gene expression. RIPK2 antibody provides a valuable reagent for studying innate immunity, inflammation, and host pathogen interactions.

Receptor interacting serine threonine kinase 2 is activated by NOD1 and NOD2, intracellular pattern recognition receptors that detect bacterial peptidoglycan. Upon ligand recognition, NOD proteins recruit RIPK2 through caspase activation and recruitment domains, leading to kinase activation and signaling complex formation. Research using RIPK2 antibody has shown that this kinase is indispensable for NF kappa B activation, cytokine production, and antimicrobial defense. By functioning as a central signaling hub, RIPK2 links bacterial detection to adaptive immune responses.

Beyond antimicrobial defense, RIPK2 contributes to autophagy and regulation of cell death. Studies with RIPK2 antibody have demonstrated that it interacts with autophagy proteins to clear intracellular bacteria. Dysregulation of RIPK2 signaling can lead to pathological inflammation, contributing to Crohn disease, Blau syndrome, and other autoinflammatory conditions. Mutations in RIPK2 or its upstream activators alter immune responses and are associated with susceptibility to chronic inflammatory disease.

In oncology, aberrant RIPK2 activation has been linked to tumor progression and immune evasion. Research with RIPK2 antibody has revealed that overexpression or hyperactivation of this kinase promotes survival pathways in cancer cells and contributes to a proinflammatory tumor microenvironment. Inhibition of RIPK2 is being investigated as a therapeutic strategy to reduce chronic inflammation and enhance cancer immunotherapy outcomes.

RIPK2 antibody is widely used in western blotting, immunohistochemistry, and immunoprecipitation. Western blotting demonstrates phosphorylation dependent activation, immunohistochemistry highlights expression in inflamed tissues, and immunoprecipitation isolates complexes formed during NOD signaling. These applications make RIPK2 antibody a versatile reagent for both basic and translational immunology.

By supplying validated RIPK2 antibody reagents, NSJ Bioreagents supports research into innate immunity, inflammation, and disease. Detection of Receptor interacting serine threonine kinase 2 provides insight into how innate immune signaling influences health and pathology.

Application Notes

Optimal dilution of the RIPK2 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Receptor interacting serine threonine kinase 2 was used as the immunogen for the RIPK2 antibody.

Storage

Store the RIPK2 antibody at -20oC.