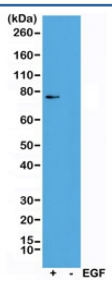
Recombinant phospho-RSK1 Antibody (Thr359/Ser363) [clone RM233] (R20260)

Catalog No.	Formulation	Size
R20260-0.1ML	Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ul

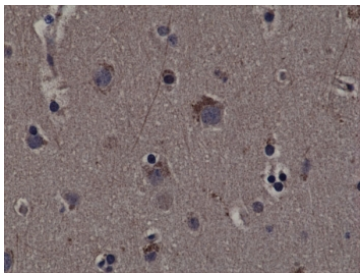
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM233
Purity	Protein A purified from animal origin-free supernatant
UniProt	Q15418
Gene ID	6195
Localization	Nuclear, cytoplasmic
Applications	Immunohistochemistry (FFPE) : 1:200-1:500 (1) Western Blot : 1:1000-1:2000
Limitations	This recombinant phospho-RSK1 antibody is available for research use only.



Western blot of A431 cells treated (+) or untreated (-) with EGF, using recombinant phospho-RSK1 antibody at 1:1000. Predicted molecular weight: 83-90 kDa.



IHC testing of FFPE human cerebral cortex tissue with recombinant phospho-RSK1 antibody.

Description

The Recombinant phospho-RSK1 antibody is a recombinant reagent engineered to detect ribosomal S6 kinase 1 (RSK1) only when it is dual phosphorylated at threonine 359 (pThr359) and serine 363 (pSer363). RSK1 is a serine/threonine kinase that functions as a critical effector of the MAPK/ERK signaling pathway. Activation of RSK1 requires sequential phosphorylation events at multiple residues, and dual phosphorylation at Thr359 and Ser363 within the activation loop of the kinase domain is essential for full enzymatic activity. The Recombinant phospho-RSK1 antibody provides highly specific recognition of this activated form, enabling researchers to monitor pathway activity with precision.

RSK1 belongs to the p90RSK family of kinases, which integrate extracellular signals from growth factors, hormones, and mitogens. Following ERK activation, RSK1 is recruited and phosphorylated at key regulatory sites, leading to kinase activation. Dual phosphorylation at Thr359 and Ser363 is a hallmark of the fully active RSK1 enzyme, distinguishing it from partially phosphorylated or inactive states. The Recombinant phospho-RSK1 antibody is designed to detect this phosphorylation signature, ensuring accurate assessment of functional RSK1 activity in cellular systems.

In research applications, the Recombinant phospho-RSK1 antibody is widely used in western blotting to measure levels of activated RSK1 in response to growth factor stimulation, oncogenic signaling, or pharmacological inhibition. In immunofluorescence, it highlights nuclear and cytoplasmic pools of phosphorylated RSK1, reflecting its translocation during signaling events. In immunohistochemistry, the antibody reveals activated RSK1 in tissue samples, offering insights into disease states where MAPK/ERK signaling is dysregulated. Recombinant design ensures reproducibility and lot-to-lot consistency, which is particularly important for phospho-specific reagents.

RSK1 regulates diverse cellular processes, including transcription, translation, cell cycle progression, and survival. Aberrant activation of RSK1 through constitutive phosphorylation is associated with cancer, where it contributes to uncontrolled proliferation and resistance to apoptosis. The Recombinant phospho-RSK1 antibody provides a powerful means to monitor these activation events and to validate the efficacy of inhibitors targeting MAPK or RSK1 itself. Synonym phrases such as recombinant dual phospho-RSK1 antibody and recombinant pThr359/pSer363 RSK1 antibody improve product discoverability for researchers referencing alternate nomenclature.

By delivering validated and reproducible detection, the Recombinant phospho-RSK1 antibody supports detailed analysis of MAPK/ERK signaling and kinase activation. NSJ Bioreagents ensures rigorous quality control for this reagent, giving scientists confidence in its use for western blotting, immunofluorescence, and immunohistochemistry. With its strict specificity for dual phosphorylation at Thr359 and Ser363, the Recombinant phospho-RSK1 antibody is an indispensable tool for dissecting RSK1 activation and its role in health and disease.

This recombinant phospho-RSK1 antibody reacts to human RSK1 only when phosphorylated at Thr359/Ser363.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant phospho-RSK1 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

1. A pH6 Citrate buffer or pH9 Tris/EDTA buffer HIER step is recommended for testing of FFPE tissue sections.

Immunogen

A phospho-peptide corresponding to human phospho-Rsk1 (Thr359/Ser363) was used as the immunogen for this recombinant phospho-RSK1 antibody.

Storage

Store the recombinant phospho-RSK1 antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).