Phospho-RSK1 p90 (pThr573) Antibody / Ribosomal S6 kinase 1 [clone 32R62] (FY12247)

Catalog No.	Formulation	Size
FY12247	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
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32R62
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	Q15418
Applications	Western Blot : 1:500-1:2000 Immunocytochemistry/Immunofluorescence : 1:50-1:200
Limitations	This Phospho-RSK1 p90 (pThr573) antibody is available for research use only.

Description

Phospho-RSK1 p90 (pThr573) antibody detects ribosomal S6 kinase 1 (RSK1) when phosphorylated at threonine 573, a modification essential for its full activation. RSK1 is part of the p90 ribosomal S6 kinase family, which act as downstream effectors of the ERK/MAPK pathway. These kinases integrate mitogenic and stress signals to regulate cell growth, survival, and differentiation. Phosphorylation at Thr573 occurs in the C-terminal kinase domain and enables activation of the N-terminal kinase domain, which phosphorylates downstream substrates.

Research using Phospho-RSK1 p90 (pThr573) antibody has shown that phosphorylation at this site is critical for RSK1 activity in transcriptional regulation. Activated RSK1 phosphorylates transcription factors such as CREB, SRF, and NFAT, driving gene expression linked to proliferation and differentiation. It also phosphorylates proteins involved in apoptosis, cell cycle progression, and protein synthesis. Aberrant RSK1 activation through persistent Thr573 phosphorylation is observed in multiple cancers, including melanoma, breast, and prostate tumors, where it promotes tumor growth and

therapy resistance.

Beyond oncology, RSK1 signaling plays roles in metabolic regulation, immune responses, and neuronal plasticity. In muscle and adipose tissues, RSK1 integrates growth factor signaling with glucose uptake and metabolism. In neurons, RSK1 influences synaptic strength and memory formation, while in immune cells, it regulates cytokine expression and T-cell function.

Antibodies specific for RSK1 phosphorylated at Thr573 are validated for western blot, immunohistochemistry, and immunofluorescence. These reagents enable selective detection of the active kinase and distinction from total RSK1. Monitoring phosphorylation at Thr573 provides insights into MAPK signaling dynamics, therapeutic inhibitor responses, and disease-related signaling abnormalities.

NSJ Bioreagents supplies this Phospho-RSK1 p90 (pThr573) antibody to support research in MAPK signaling, cancer, and cellular regulation.

Application Notes

Optimal dilution of the Phospho-RSK1 p90 (pThr573) antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Phospho-RSK1 p90 (pT573) was used as the immunogen for the Phospho-RSK1 p90 (pThr573) antibody.

Storage

Store the Phospho-RSK1 p90 (pThr573) antibody at -20oC.