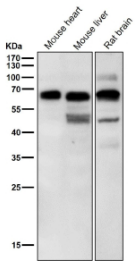
Phospho-p70 S6 Kinase beta (pSer371) Antibody [clone 32R04] (FY12218)

Catalog No.	Formulation	Size
FY12218	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

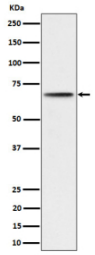
Recombinant RABBIT MONOCLONAL

Bulk quote request

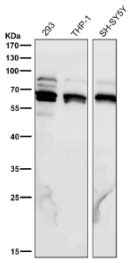
Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32R04
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q9UBS0
Applications	Western blot: 1:500-1:2000
Limitations	This Phospho-p70 S6 Kinase beta (pSer371) antibody is available for research use only.



All lanes use the Phospho-p70 S6 Kinase beta (pSer371) antibody at 1:6000 dilution for 1 hour at room temperature.



Western blot analysis of Phospho- S6 Kinase beta (S371) expression in 293 cell lysate using Phospho-p70 S6 Kinase beta (pSer371) antibody.



All lanes use the Phospho-p70 S6 Kinase beta (pSer371) antibody at 1:6000 dilution for 1 hour at room temperature.

Description

Phospho-p70 S6 Kinase beta (pSer371) antibody detects the phosphorylated form of ribosomal protein S6 kinase beta-1 (S6K1) at serine 371. S6K1, also called p70S6K, is a serine/threonine kinase activated downstream of mTORC1 and plays a pivotal role in protein synthesis, cell growth, and metabolism. Phosphorylation at Ser371 is an essential priming event for full kinase activation, enabling subsequent phosphorylation at the hydrophobic motif and activation loop.

Research using Phospho-p70 S6 Kinase beta (pSer371) antibody highlights the importance of this modification in cell growth and proliferation. Ser371 phosphorylation enhances kinase activity, promoting phosphorylation of ribosomal protein S6 and translation initiation factors. This activity stimulates protein synthesis, supporting anabolic metabolism and cellular hypertrophy. In cancer, aberrant activation of S6K1 contributes to uncontrolled growth and resistance to apoptosis. Elevated Ser371 phosphorylation has been observed in breast, prostate, and colorectal tumors, where it correlates with mTORC1 hyperactivation.

Phosphorylation at Ser371 is also a readout of nutrient and growth factor signaling. Under nutrient-rich conditions, mTORC1 activity drives S6K1 phosphorylation, whereas nutrient deprivation or rapamycin treatment diminishes this event. Monitoring Ser371 phosphorylation provides insight into mTOR pathway regulation in metabolic disease and therapeutic interventions. In insulin resistance and type 2 diabetes, dysregulated S6K1 signaling contributes to feedback inhibition of insulin receptor substrates, linking it to impaired glucose homeostasis.

Neurobiology studies show that S6K1 activity influences synaptic plasticity, memory, and neuronal survival. Ser371 phosphorylation may integrate mTOR activity with cognitive functions, while dysregulation is implicated in neurodegenerative disorders. In cardiovascular research, hyperactivation of S6K1 contributes to pathological hypertrophy and vascular remodeling.

Antibodies against phospho-S6K1 (pSer371) are validated for western blot, immunohistochemistry, and immunofluorescence. These reagents specifically recognize the phosphorylated form, enabling distinction between active and inactive states. Clone-based antibodies provide reproducibility for studying signaling pathways, drug responses, and disease mechanisms.

NSJ Bioreagents supplies this Phospho-p70 S6 Kinase beta (pSer371) antibody for research into mTOR signaling, cancer, and metabolism.

Application Notes

Optimal dilution of the Phospho-p70 S6 Kinase beta (pSer371) antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Phospho-P70 S6 Kinase beta (S371) was used as the immunogen for the Phospho-p70 S6 Kinase beta (pSer371) antibody.

Storage

Store the Phospho-p70 S6 Kinase beta (pSer371) antibody at -20oC.

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