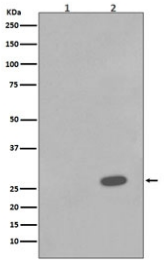
Phospho-HSP27 S78 Antibody IBC-8 / HSPB1 pS78 Antibody [clone IBC-8] (RQ5081)

Catalog No.	Formulation	Size
RQ5081	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Bulk quote request

Availability	1-2 weeks
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	IBC-8
Purity	Affinity purified
UniProt	P04792
Applications	Western blot: 1:500
Limitations	This Phospho-HSP27 S78 Antibody IBC-8 / HSPB1 pS78 Antibody is available for research use only.



Phospho-HSP27 S78 Antibody IBC-8 Detection in Anisomycin-Treated A431 Cells WB. Western blot analysis of human A431 cell lysates, untreated (lane 1) or treated with anisomycin (lane 2), using Phospho-HSP27 S78 Antibody clone IBC-8. A strong band at approximately 25-27 kDa is detected following anisomycin treatment, while little to no signal is observed in untreated cells, demonstrating treatment-dependent detection of HSPB1 phosphorylated at serine 78.

Description

Phospho-HSP27 S78 Antibody IBC-8 / HSPB1 pS78 Antibody recognizes HSPB1, commonly known as HSP27, when phosphorylated at serine 78. HSP27 is a member of the small heat shock protein family and functions as an ATP-independent molecular chaperone involved in protein homeostasis and cellular adaptation to stress. Phosphorylation is an important mechanism regulating HSP27 organization, molecular interactions and biological activity, making site-

specific detection valuable for investigating dynamic changes in HSPB1 signaling.

HSP27 contains a conserved alpha-crystallin domain and can assemble into dynamic oligomeric complexes. In its molecular chaperone role, HSP27 associates with destabilized or partially unfolded proteins and helps limit inappropriate protein aggregation. Phosphorylation influences HSP27 oligomerization and interactions with other cellular components, providing a mechanism through which stress-responsive signaling can modify HSP27 function.

Serine 78 is one of the major regulatory phosphorylation sites of human HSP27. Stress-responsive signaling pathways can stimulate phosphorylation of HSP27 through downstream kinases including MAPK-activated protein kinase 2. Phosphorylation at serine 78 and other regulatory sites has been studied following heat shock, oxidative stress, inflammatory signaling and additional cellular challenges. An HSPB1 pS78 Antibody enables researchers to examine phosphorylation-associated changes in HSP27 independently from measurements of total HSP27 abundance.

Phosphorylated HSP27 has also been investigated in connection with cytoskeletal dynamics, cell migration, apoptosis and survival. These processes are relevant to cancer biology, where altered stress signaling and HSP27 regulation may contribute to tumor cell adaptation and responses to therapeutic stress. Analysis of individual phosphorylation sites such as serine 78 can provide information about HSP27 regulatory state that is not available from measurement of total HSPB1 expression alone.

NSJ Bioreagents offers this rabbit monoclonal Phospho-HSP27 S78 Antibody as clone IBC-8 for research into phosphorylation-dependent HSP27 biology. The reagent provides site-specific detection of HSP27 phosphorylated at serine 78, supporting investigation of stress-responsive kinase signaling and HSPB1 regulation. A Phospho-HSP27 S78 Antibody provides a research tool for examining phosphorylation-dependent HSP27 signaling, molecular stress responses and regulation of HSPB1 activity.

For detection of total HSP27 independent of serine 78 phosphorylation, see our HSP27 Antibody G3.1 / Heat Shock Protein 27 Antibody page.

Application Notes

Optimal dilution of the Phospho-HSP27 S78 Antibody IBC-8 / HSPB1 pS78 Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to human Heat Shock Protein 27 (surrounding pS78) was used as the immunogen for the Phospho-HSP27 S78 Antibody.

Storage

Store the Phospho-HSP27 S78 Antibody at -20oC.

Alternate Names

HSPB1 pS78 antibody, HSP27 pS78 antibody, HSP27 phospho-S78 antibody, Phospho-HSPB1 S78 antibody, HSP27 Ser78 antibody, Heat shock protein 27 pS78 antibody

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