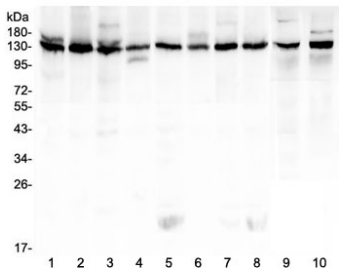
BUB1 Polyclonal Antibody / BUB1 Serine Threonine Kinase Antibody (R31556)

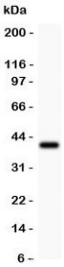
Catalog No.	Formulation	Size
R31556	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
UniProt	O43683
Gene ID	699
Applications	Western blot: 0.5-1ug/ml
Limitations	This BUB1 Polyclonal Antibody / BUB1 Serine Threonine Kinase Antibody is available for research use only.



BUB1 Polyclonal Antibody by WB in human, rat, and mouse samples. Western blot analysis of human cell lines and rodent tissues using BUB1 Polyclonal Antibody. The experiment includes eight human cell lysates, rat testis, and mouse testis, demonstrating detection across multiple biological samples. BUB1 is a mitotic checkpoint kinase with a predicted molecular weight of approximately 122 kDa. This BUB1 Serine Threonine Kinase Antibody recognizes a protein involved in spindle assembly checkpoint signaling and chromosome segregation.



BUB1 Polyclonal Antibody by WB with recombinant human BUB1. Western blot analysis of recombinant human BUB1 partial protein using BUB1 Polyclonal Antibody. The experiment includes 0.5 ng recombinant antigen, providing direct evidence of antibody recognition of a defined BUB1 protein preparation. The recombinant fragment may migrate at a different molecular weight than full-length BUB1, depending on its sequence and expression construct. This BUB1 Serine Threonine Kinase Antibody recognizes a mitotic checkpoint protein involved in kinetochore signaling and chromosome segregation.

Description

BUB1 Polyclonal Antibody recognizes BUB1, a serine/threonine protein kinase involved in regulating the spindle assembly checkpoint during mitosis. BUB1 helps prevent premature chromosome segregation by coordinating checkpoint signaling at kinetochores until chromosomes establish proper attachments to spindle microtubules. This regulatory mechanism supports accurate chromosome distribution between daughter cells and contributes to genomic stability. The BUB1 Serine Threonine Kinase Antibody targets a protein essential for chromosome segregation and mitotic checkpoint function.

The human BUB1 gene is located on chromosome 2q13 and encodes a protein of approximately 1,085 amino acids with a predicted molecular weight near 122 kDa. BUB1 contains an N-terminal kinetochore-targeting region, regulatory domains involved in protein interactions, and a C-terminal kinase domain. Recruitment to kinetochores depends on interactions with BUB3 and components of the KNL1 signaling platform. These molecular associations position BUB1 within the machinery responsible for monitoring chromosome attachment and spindle organization.

BUB1 contributes to mitotic checkpoint signaling by facilitating the recruitment of regulatory proteins that delay anaphase until proper chromosome alignment is achieved. Its kinase activity also promotes phosphorylation of histone H2A at threonine 120, supporting the recruitment of shugoshin proteins involved in centromeric cohesion and chromosome stability. These functions connect BUB1 activity with kinetochore organization, centromere regulation, and accurate chromosome segregation. The BUB1 Serine Threonine Kinase Antibody is relevant to research examining these interconnected processes.

Altered BUB1 expression or activity can interfere with mitotic checkpoint signaling and contribute to chromosomal instability. Abnormal regulation of spindle checkpoint proteins has been investigated in numerous cancers, where defects in chromosome segregation can promote aneuploidy and genomic heterogeneity. BUB1 is also studied in relation to cell cycle progression, mitotic stress, and responses to spindle-disrupting agents. Understanding its regulatory functions provides insight into mechanisms controlling cell division and maintaining genomic integrity.

Research involving BUB1 contributes to understanding kinetochore signaling, mitotic checkpoint regulation, and chromosome segregation. Its interactions with other checkpoint proteins make it an important component of studies investigating mitosis and cell cycle control. NSJ Bioreagents offers antibodies targeting proteins involved in cell division and intracellular signaling. A BUB1 Polyclonal Antibody provides a research tool for examining BUB1 expression and its role in spindle checkpoint function, chromosome stability, and mitotic regulation.

For another antibody targeting this mitotic checkpoint kinase, see our BUB1 Antibody.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the BUB1 Polyclonal Antibody / BUB1 Serine Threonine Kinase Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Human partial recombinant protein (AA 731-1085) was used as the immunogen for this BUB1 Polyclonal Antibody.

Storage

After reconstitution, the BUB1 Polyclonal Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

BUB1 Rabbit antibody, BUB1 Mitotic Checkpoint antibody, Budding Uninhibited by Benzimidazoles 1 antibody, BUB1 Protein Kinase antibody, Spindle Assembly Checkpoint Protein antibody, Mitotic Checkpoint Serine Threonine Kinase antibody

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