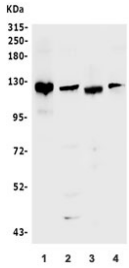
Rodent BUB1 Antibody / Mouse and Rat BUB1 Antibody (RQ5869)

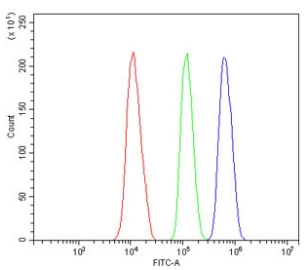
Catalog No.	Formulation	Size
RQ5869	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	O08901
Applications	Western blot: 0.5-1ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This Rodent BUB1 Antibody / Mouse and Rat BUB1 Antibody is available for research use only.



Rodent BUB1 Antibody by WB in mouse and rat samples. Western blot analysis of mouse testis, rat heart, rat PC-3, and rat RH35 cell lysates using Rodent BUB1 Antibody. The experiment evaluates BUB1 detection across multiple rodent-derived biological samples. BUB1 is a serine/threonine kinase involved in spindle assembly checkpoint signaling, with a predicted molecular weight of approximately 122 kDa in humans. This Mouse and Rat BUB1 Antibody recognizes a conserved mitotic regulator involved in chromosome segregation and kinetochore function.



Rodent BUB1 Antibody by FACS in mouse HEPA1-6 cells. Flow cytometric analysis of mouse HEPA1-6 cells using Rodent BUB1 Antibody. The experiment includes cells-alone and isotype-control populations for comparison with antibody staining. BUB1 is an intracellular mitotic checkpoint kinase involved in kinetochore signaling and chromosome segregation. This Mouse and Rat BUB1 Antibody supports investigations of BUB1 expression in rodent-derived cells using flow cytometry.

Description

Rodent BUB1 Antibody recognizes BUB1, a serine/threonine protein kinase that plays a central role in regulating the spindle assembly checkpoint during mitosis. BUB1 helps ensure accurate chromosome segregation by monitoring kinetochore attachment to spindle microtubules and coordinating checkpoint signaling that delays anaphase until proper chromosome alignment is achieved. This regulatory function supports genomic stability and prevents premature chromosome separation. The Mouse and Rat BUB1 Antibody targets a conserved mitotic regulator involved in cell cycle control and chromosome segregation.

BUB1 is encoded by a highly conserved gene that produces a large protein containing regulatory regions involved in kinetochore localization and a C-terminal serine/threonine kinase domain. The protein interacts with BUB3 and components of the KNL1 signaling platform, enabling its recruitment to kinetochores during mitosis. These interactions position BUB1 within the spindle checkpoint machinery responsible for monitoring chromosome attachment and maintaining mitotic fidelity.

BUB1 contributes to checkpoint signaling by supporting the recruitment and organization of proteins that prevent premature anaphase onset. Its kinase activity also promotes phosphorylation of histone H2A at threonine 120, facilitating the recruitment of shugoshin proteins involved in centromeric cohesion and chromosome stability. These functions connect BUB1 with kinetochore organization, centromere regulation, and accurate chromosome segregation. The Mouse and Rat BUB1 Antibody is relevant to research investigating these molecular processes.

Disruption of BUB1 expression or activity can impair spindle checkpoint function and contribute to chromosomal instability. Abnormal mitotic regulation has been implicated in aneuploidy, tumor development, and cellular responses to spindle-disrupting agents. BUB1 is therefore studied in relation to cell cycle progression, mitotic stress, and the maintenance of genomic integrity. Research involving rodent experimental models provides opportunities to investigate these processes in different physiological and disease contexts.

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

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

Application Notes

Optimal dilution of the Rodent BUB1 Antibody / Mouse and Rat BUB1 Antibody should be determined by the researcher.

Immunogen

Recombinant mouse protein (amino acids D40-K257) was used as the immunogen for the Rodent BUB1 Antibody.

Storage

After reconstitution, the Rodent BUB1 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 Rodent antibody, BUB1 Mouse antibody, BUB1 Rat antibody, BUB1 Mitotic Checkpoint antibody, Budding Uninhibited by Benzimidazoles 1 antibody, BUB1 Serine Threonine Kinase antibody

Copyright © NSJ Bioreagents. All rights reserved.