

Product datasheet

Anti-Bub1 antibody ab70372

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概述

产品名称	Anti-Bub1抗体
描述	兔多克隆抗体to Bub1
宿主	Rabbit
特异性	Mouse Bub1 is moderately conserved at the site to which the epitope maps.
经测试应用	适用于: WB, IHC-P, IP
种属反应性	与反应: Human 预测可用于: Chimpanzee, Rhesus monkey, Gorilla
免疫原	Synthetic peptide corresponding to Human Bub1 (N terminal). Synthetic peptide corresponding to a region between residues 1 and 50 of human Bub1 Database link: O43683
阳性对照	Whole cell lysates from HeLa cells asynchronously growing or treated with nocodazole.

性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
存储溶液	Preservative: 0.09% Sodium azide Constituents: 1.815% Tris, 1.764% Sodium citrate, 0.021% PBS
纯度	Immunogen affinity purified
克隆	多克隆
同种型	IgG

应用

Our [Abpromise guarantee](#) covers the use of **ab70372** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

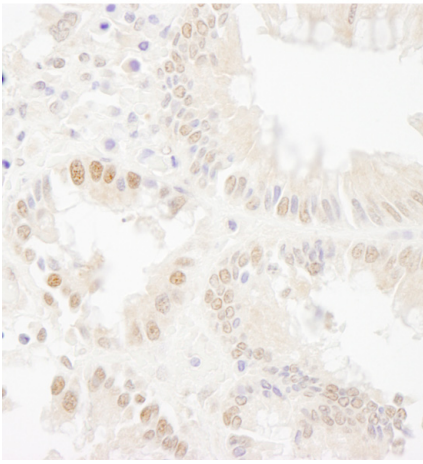
应用	Ab评论	说明
WB		1/5000 - 1/15000. Detects a band of approximately 140 kDa (predicted molecular weight: 122 kDa).

应用	Ab评论	说明
IHC-P		1/500 - 1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		Use at 1-4 µg/mg of lysate.

靶标

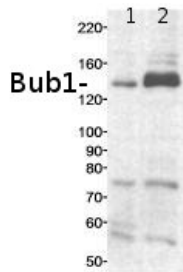
功能	<p>Serine/threonine-protein kinase that performs 2 crucial functions during mitosis: it is essential for spindle-assembly checkpoint signaling and for correct chromosome alignment. Has a key role in the assembly of checkpoint proteins at the kinetochore, being required for the subsequent localization of CENPF, BUB1B, CENPE and MAD2L1. Required for the kinetochore localization of PLK1. Plays an important role in defining SGOL1 localization and thereby affects sister chromatid cohesion. Acts as a substrate for anaphase-promoting complex or cyclosome (APC/C) in complex with its activator CDH1 (APC/C-Cdh1). Necessary for ensuring proper chromosome segregation and binding to BUB3 is essential for this function. Can regulate chromosome segregation in a kinetochore-independent manner. Can phosphorylate BUB3. The BUB1-BUB3 complex plays a role in the inhibition of APC/C when spindle-assembly checkpoint is activated and inhibits the ubiquitin ligase activity of APC/C by phosphorylating its activator CDC20. This complex can also phosphorylate MAD1L1. Kinase activity is essential for inhibition of APC/CCDC20 and for chromosome alignment but does not play a major role in the spindle-assembly checkpoint activity. Mediates cell death in response to chromosome missegregation and acts to suppress spontaneous tumorigenesis.</p>
组织特异性	<p>High expression in testis and thymus, less in colon, spleen, lung and small intestine. Expressed in fetal thymus, bone marrow, heart, liver, spleen and thymus. Expression is associated with cells/tissues with a high mitotic index.</p>
序列相似性	<p>Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. BUB1 subfamily. Contains 1 BUB1 N-terminal domain. Contains 1 protein kinase domain.</p>
结构域	<p>The KEN box is required for its ubiquitination and degradation. BUB1 N-terminal domain directs kinetochore localization and binding to BUB3.</p>
翻译后修饰	<p>Phosphorylated upon DNA damage, probably by ATM or ATR. Upon spindle-assembly checkpoint activation it is hyperphosphorylated and its kinase activity toward CDC20 is stimulated. Phosphorylation at Thr-609 is required for interaction with PLK1, phosphorylation at this site probably creates a binding site for the POLO-box domain of PLK1, thus enhancing the PLK1-BUB1 interaction. Ubiquitinated and degraded during mitotic exit by APC/C-Cdh1.</p>
细胞定位	<p>Nucleus. Chromosome > centromere > kinetochore. Nuclear in interphase cells. Accumulates gradually during G1 and S phase of the cell cycle, peaks at G2/M, and drops dramatically after mitosis. Localizes to the outer kinetochore. Kinetochore localization is required for normal mitotic timing and checkpoint response to spindle damage and occurs very early in prophase. AURKB, CASC5 and INCENP are required for kinetochore localization.</p>

图片



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bub1 antibody (ab70372)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon carcinoma tissue labelling Bub1 with ab70372 at 1/1000 (1µg/ml). Detection: DAB.



Western blot - Anti-Bub1 antibody (ab70372)

All lanes : Anti-Bub1 antibody (ab70372) at 0.1 µg/ml

Lane 1 : HeLa whole cell lysate - asynchronously growing

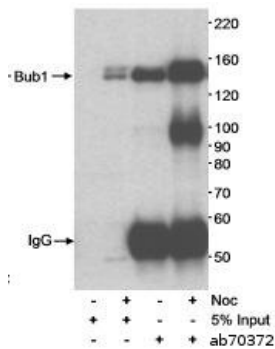
Lane 2 : HeLa whole cell lysate - treated with Nocodazole

Lysates/proteins at 50 µg per lane.

Predicted band size: 122 kDa

Observed band size: 140 kDa

[why is the actual band size different from the predicted?](#)



Immunoprecipitation - Anti-Bub1 antibody (ab70372)

Detection of Human Bub1 by Immunoprecipitation. HeLa Whole cell lysate used at 50 µg for WB Input; 1 mg for IP. Cells were asynchronously growing (-) or treated with Nocodazole (Noc +). ab70372 was used at 1 µg/mg lysate for IP and at 0.1 µg/ml for subsequent Western blot detection .

All lanes : Anti-Bub1 antibody (ab70372) at 1 µg/ml

Lanes 1 & 3 : HeLa cells asynchronously growing

Lanes 2 & 4 : HeLa cells treated with nocodazole

Lysates/proteins at 50 µg per lane.

Developed using the ECL technique.

Exposure time: 5 minutes

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