

Anti-BubR1 antibody ab172581

★★★★★ 1 Abreviews 1 References 3 图像

概述

产品名称	Anti-BubR1抗体
描述	兔多克隆抗体to BubR1
宿主	Rabbit
经测试应用	适用于: WB, ICC/IF, IP
种属反应性	与反应: Mouse, Rat, Human
免疫原	Recombinant full length protein corresponding to Human BubR1.
常规说明	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at -20°C.
存储溶液	Constituent: Water
纯度	Tissue culture supernatant
克隆	多克隆
同种型	IgG

应用

The Abpromise guarantee      Abpromise™承诺保证使用ab172581于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		Use at an assay dependent concentration. Predicted molecular weight: 119 kDa.
ICC/IF	★★★★★ (1)	1/1000.
IP		Use at an assay dependent concentration.

靶标

**功能** Essential component of the mitotic checkpoint. Required for normal mitosis progression. The mitotic checkpoint delays anaphase until all chromosomes are properly attached to the mitotic spindle. One of its checkpoint functions is to inhibit the activity of the anaphase-promoting complex/cyclosome (APC/C) by blocking the binding of CDC20 to APC/C, independently of its kinase activity. The other is to monitor kinetochore activities that depend on the kinetochore motor CENPE. Required for kinetochore localization of CENPE. Negatively regulates PLK1 activity in interphase cells and suppresses centrosome amplification. Also implicated in triggering apoptosis in polyploid cells that exit aberrantly from mitotic arrest. May play a role for tumor suppression.

**组织特异性** Highly expressed in thymus followed by spleen. Preferentially expressed in tissues with a high mitotic index.

**疾病相关** Note=Defects in BUB1B are associated with tumor formation.  
 Defects in BUB1B are the cause of premature chromatid separation trait (PCS) [MIM:176430]. PCS consists of separate and splayed chromatids with discernible centromeres and involves all or most chromosomes of a metaphase. It is found in up to 2% of metaphases in cultured lymphocytes from approximately 40% of normal individuals. When PCS is present in 5% or more of cells, it is known as the heterozygous PCS trait and has no obvious phenotypic effect, although some have reported decreased fertility. Inheritance is autosomal dominant.  
 Defects in BUB1B are the cause of mosaic variegated aneuploidy syndrome (MVA) [MIM:257300]. MVA is a severe autosomal recessive developmental disorder characterized by mosaic aneuploidies, predominantly trisomies and monosomies, involving multiple different chromosomes and tissues. The proportion of aneuploid cells varies but is usually more than 25% and is substantially greater than in normal individuals. Affected individuals typically present with severe intrauterine growth retardation and microcephaly. Eye anomalies, mild dysmorphism, variable developmental delay, and a broad spectrum of additional congenital abnormalities and medical conditions may also occur. The risk of malignancy is high, with rhabdomyosarcoma, Wilms tumor and leukemia reported in several cases. MVA is caused by biallelic mutations in the BUB1B gene.

**序列相似性** Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. BUB1 subfamily. Contains 1 BUB1 N-terminal domain. Contains 1 protein kinase domain.

**结构域** The D-box targets the protein for rapid degradation by ubiquitin-dependent proteolysis during the transition from mitosis to interphase.

The BUB1 N-terminal domain directs kinetochore localization and binding to BUB3.

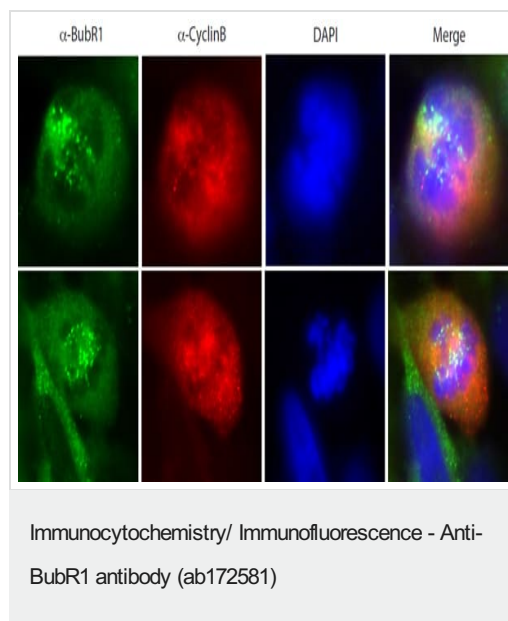
**翻译后修饰** Proteolytically cleaved by caspase-3 in a cell cycle specific manner. The cleavage might be involved in the durability of the cell cycle delay. Caspase-3 cleavage is associated with abrogation of the mitotic checkpoint. The major site of cleavage is at Asp-610.

Acetylation at Lys-250 regulates its degradation and timing in anaphase entry.  
 Ubiquitinated. Degradated by the proteasome.  
 Sumoylated by SUMO2 and SUMO3. The sumoylation mediates the association with CENPE at the kinetochore.  
 Autophosphorylated in vitro. Intramolecular autophosphorylation is stimulated by CENPE.  
 Phosphorylated during mitosis and hyperphosphorylated in mitotically arrested cells.  
 Phosphorylation at Ser-670 and Ser-1043 occurs at kinetochores upon mitotic entry with dephosphorylation at the onset of anaphase.

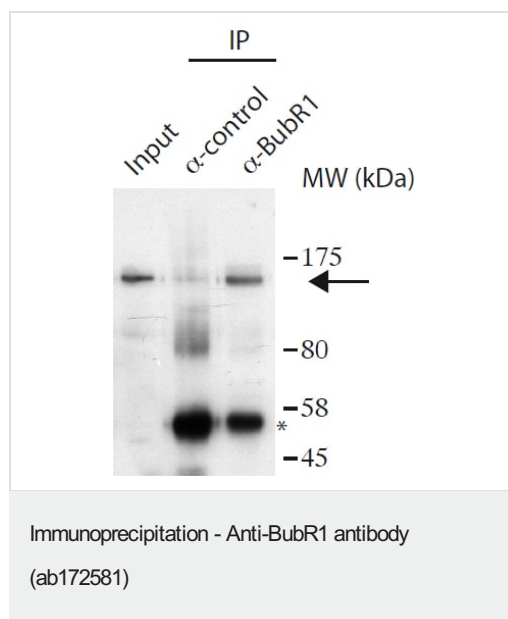
## 细胞定位

Cytoplasm. Nucleus. Chromosome > centromere > kinetochore. Cytoplasm > cytoskeleton > centrosome. Cytoplasmic in interphase cells. Associates with the kinetochores in early prophase. Kinetochore localization requires BUB1, PLK1 and CASC5.

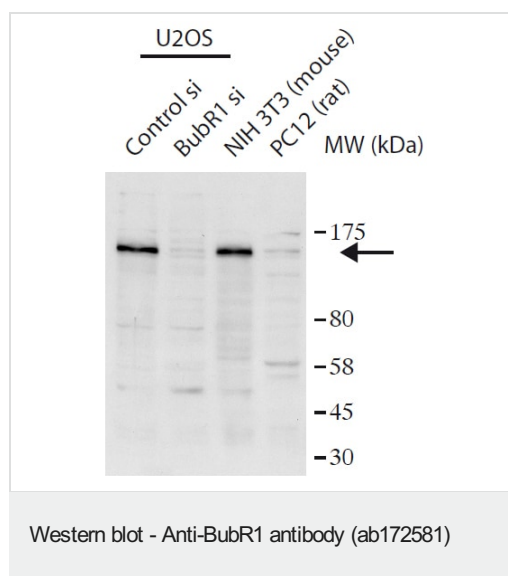
## 图片



Immunocytochemistry/Immunofluorescence analysis of U2OS cells labelling BubR1 with ab172581 at 1:1000. Cells were fixed with PFA and permeabilized with methanol for 2 minutes. Cells were incubated with the primary anitbody overnight at room temperature. From left to right - BubR1, CyclinB, DAPI, Merge.



Immunoprecipitation analysis of U2OS cells labelling BubR1 with ab172581. Protein A beads were crosslinked to the serum.



**All lanes :** Anti-BubR1 antibody (ab172581)

**Lane 1 :** U2OS (Control si)

**Lane 2 :** U2OS (BubR1 si)

**Lane 3 :** NIH 3T3 cell lysate at 40 µg

**Lane 4 :** PC12 cell lysate at 40 µg

**Predicted band size:** 119 kDa

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