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Product datasheet

Anti-BubR1 antibody ab70544

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製品の概要

製品名	Anti-BubR1 antibody
製品の詳細	Rabbit polyclonal to BubR1
由来種	Rabbit
アプリケーション	**適用あり:** IHC-P, WB, IP
種交差性	**交差種:** Human **交差が予測される動物種:** Chimpanzee, Rhesus monkey, Gorilla, Orangutan
免疫原	Synthetic peptide from a region between residue 1 and 50 of human BubR1 using the numbering given in entry NP_001202.3
特記事項	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. 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&As

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
バッファー	pH: 6.8 Preservative: 0.09% Sodium azide Constituents: 1.815% Tris, 1.764% Sodium citrate, 0.021% PBS
精製度	Immunogen affinity purified
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee	Abpromise保証は、次のテスト済みアプリケーションにおけるab70544の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
IHC-P		1/100 - 1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/2000 - 1/10000. Detects a band of approximately 120 kDa (predicted molecular weight: 120 kDa).
IP		Use at 2-5 µg/mg of lysate.

ターゲット情報

機能

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.

組織特異性

Highly expressed in thymus followed by spleen. Preferentially expressed in tissues with a high mitotic index.

関連疾患

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.

配列類似性

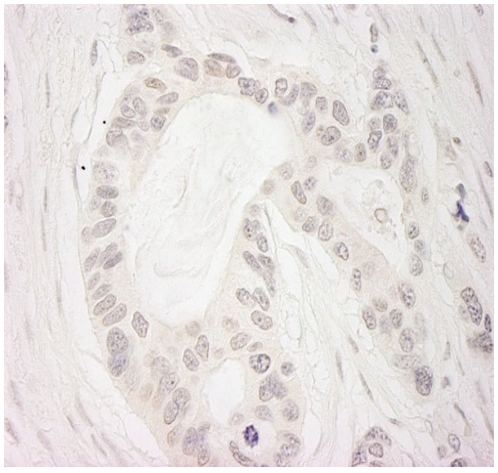
Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. BUB1 subfamily.
Contains 1 BUB1 N-terminal domain.
Contains 1 protein kinase domain.

ドメイン

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.

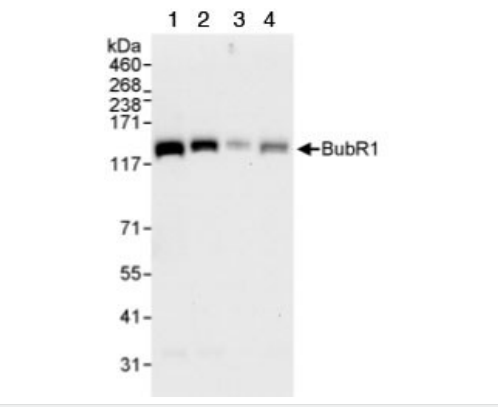
翻訳後修飾	Proteolytically cleaved by caspase-3 in a cell cycle specific manner. The cleavage might be involved in the durability of the cell cycle delay. Caspase-3 cleavage is associated with abrogation of the mitotic checkpoint. The major site of cleavage is at Asp-610. Acetylation at Lys-250 regulates 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.
細胞内局在	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.

画像



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BubR1 antibody (ab70544)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human ovarian carcinoma tissue labelling BubR1 with ab70544 at 1/200 (1µg/ml). Detection: DAB.



Western blot - Anti-BubR1 antibody (ab70544)

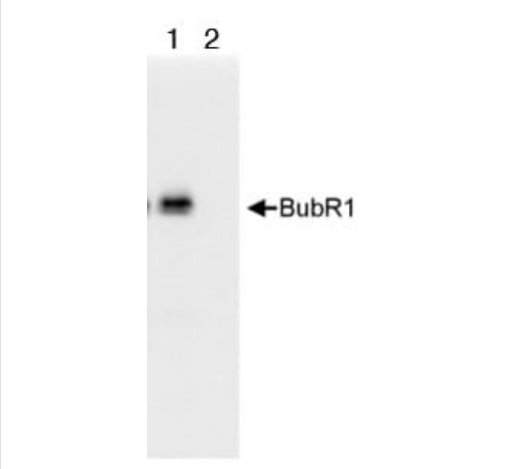
All lanes : Anti-BubR1 antibody (ab70544) at 0.04 µg/ml

Lane 1 : Whole cell lysate from HeLa cells at 50 µg
Lane 2 : Whole cell lysate from HeLa cells at 15 µg
Lane 3 : Whole cell lysate from HeLa cells at 5 µg
Lane 4 : Whole cell lysate from 293T cells at 50 µg

Developed using the ECL technique.

Predicted band size: 120 kDa
Observed band size: 120 kDa

Exposure time: 30 seconds



Immunoprecipitation - Anti-BubR1 antibody (ab70544)

1mg whole cell lysate from HeLa cells was immunoprecipitated with ab70544 at 3ug/mg of lysate (lane 1) or a with a control rabbit IgG (lane 2). For the subsequent western blot, 20% of the immunoprecipitae was loaded per lane, and ab70544 was used at 1ug/ml. Detection: chemiluminescence with exposure time of 3 seconds.

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