



Rabbit Anti-BubR1 antibody

SL5726R

Product Name:	BubR1
Chinese Name:	有丝分裂检验点蛋白BubR1抗体
Alias:	Beta homolog of <i>S. cerevisiae</i> BUB 1; Beta homolog of <i>S. cerevisiae</i> budding uninhibited by benzimidazoles; BUB 1B; BUB1 budding uninhibited by benzimidazoles 1 homolog beta; Bub1A; BUB1B; BUB1B_HUMAN; BUB1beta; BUBR1; Budding Uninhibited by Benzimidazoles 1 beta; hBUBR1; MAD3/BUB1 related protein kinase; MAD3/BUB1-related protein kinase; MAD3L; Mitotic checkpoint gene BUB1B; Mitotic checkpoint kinase MAD3L; Mitotic checkpoint serine/threonine protein kinase BUB1 beta; Mitotic checkpoint serine/threonine-protein kinase BUB1 beta; Protein SSK1; SSK 1; SSK1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Cow,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	120kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human BubR1:751-850/1050
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed

This gene encodes a kinase involved in spindle checkpoint function. The protein has been localized to the kinetochore and plays a role in the inhibition of the anaphase-promoting complex/cyclosome (APC/C), delaying the onset of anaphase and ensuring proper chromosome segregation. Impaired spindle checkpoint function has been found in many forms of cancer. [provided by RefSeq, Jul 2008]

Function:

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.

Subunit:

Interacts with CENPE, CENPF, mitotin, PLK1 and BUB3. Part of a complex containing BUB3, CDC20 and BUB1B. Interacts with anaphase-promoting complex/cyclosome (APC/C). Interacts with CASC5.

Subcellular Location:

Cytoplasm. Nucleus. Chromosome, centromere, kinetochore. Cytoplasm, cytoskeleton, centrosome.

Tissue Specificity:

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

Post-translational modifications:

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. Degraded by the proteasome.

Sumoylated with 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.

DISEASE:

Note=Defects in BUB1B are associated with tumor formation.

Product Detail:

Premature chromatid separation trait (PCS) [MIM:176430]: 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. Note=The disease is caused by mutations affecting the gene represented in this entry.

Mosaic variegated aneuploidy syndrome 1 (MVA1) [MIM:257300]: A severe developmental disorder characterized by mosaic aneuploidies, predominantly trisomies and monosomies, involving multiple different chromosomes and tissues. 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. Note=The disease is caused by mutations affecting the gene represented in this entry. MVA1 is caused by biallelic mutations in the BUB1B gene.

Similarity:

Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. BUB1 subfamily.

Contains 1 BUB1 N-terminal domain.

Contains 1 protein kinase domain.

SWISS:

O60566

Gene ID:

701

Database links:

[Entrez Gene: 701](#) Human

[Omim: 602860](#) Human

[SwissProt: O60566](#) Human

[Unigene: 513645](#) Human

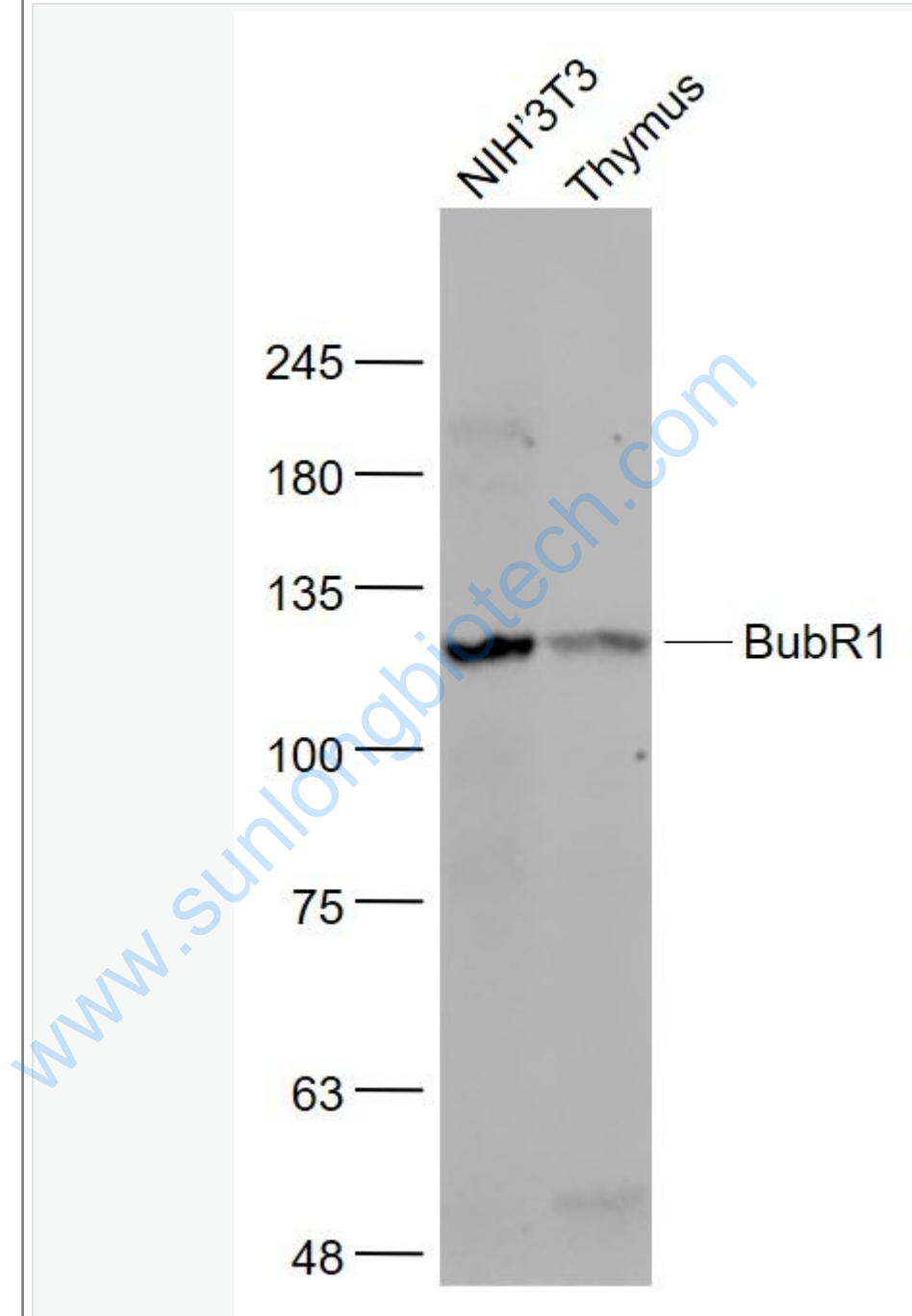
Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

BubR1是存在于哺乳动物中的有丝分裂检查点基因家族Mad3的同源基因,其编码蛋

白BubR1是一个多结构域蛋白,在监测细胞有丝分裂前中期向后期转化的过程中扮演重要的角色。

Picture:



Sample:

NIH/3T3(Mouse) Cell Lysate at 30 ug

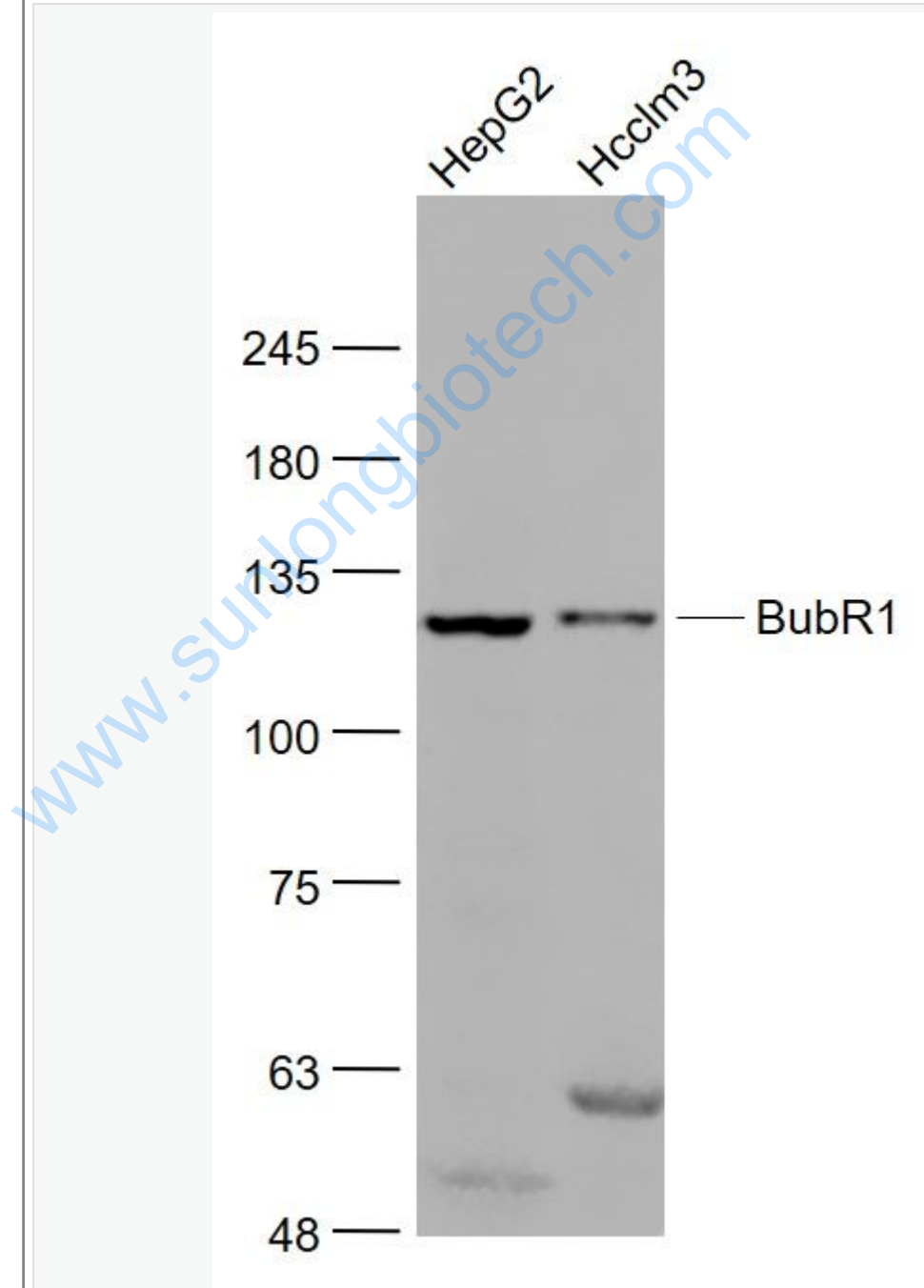
Thymus (Mouse) Lysate at 40 ug

Primary: Anti- BubR1 (SL5726R) at 1/500 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 120 kD

Observed band size: 120 kD



Sample:

HepG2(Human) Cell Lysate at 30 ug

Hcclm3(Human) Cell Lysate at 30 ug

Primary: Anti- BubR1 (SL5726R) at 1/500 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 120 kD

Observed band size: 120 kD

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