


Anti-Claspin antibody ab3721

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Overview

Product name	Anti-Claspin antibody
Description	Rabbit polyclonal to Claspin
Host species	Rabbit
Tested applications	Suitable for: WB, IP
Species reactivity	Reacts with: Human Predicted to work with: Chimpanzee, Gorilla 
Immunogen	Synthetic peptide (Human) - which represents a portion of human Claspin encoded within exon 15.
Positive control	HeLa cell lysate.
General notes	<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&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7 Preservative: 0.1% Sodium azide Constituents: 0.021% PBS, 1.764% Sodium citrate, 1.815% Tris
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab3721 in the following tested applications.

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

Application	Abreviews	Notes
WB		1/1000 - 1/10000. Detects a band of approximately 180 kDa (predicted molecular weight: 150 kDa).
IP		Use at 2-10 µg/mg of lysate.

Target

Function

Required for checkpoint mediated cell cycle arrest in response to inhibition of DNA replication or to DNA damage induced by both ionizing and UV irradiation. Adapter protein which binds to BRCA1 and the checkpoint kinase CHEK1 and facilitates the ATR-dependent phosphorylation of both proteins. Can also bind specifically to branched DNA structures and may associate with S-phase chromatin following formation of the pre-replication complex (pre-RC). This may indicate a role for this protein as a sensor which monitors the integrity of DNA replication forks.

Sequence similarities

Belongs to the claspin family.

Domain

The C-terminus of the protein contains 3 potential CHEK1-binding motifs (CKB motifs). Potential phosphorylation sites within CKB motif 1 and CKB motif 2 are required for interaction with CHEK1.

Post-translational modifications

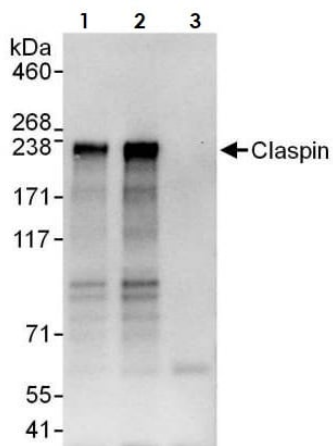
Phosphorylated. Undergoes ATR-dependent phosphorylation by CHEK1 during activation of DNA replication or damage checkpoints. Phosphorylation by CSNK1G1/CK1 promotes CHEK1 binding.

Ubiquitinated by the anaphase promoting complex/cyclosome (APC/C) during G1 phase, leading to its degradation by the proteasome. Ubiquitination is mediated via its interaction with FZR1/CDH1. Following DNA damage, it is deubiquitinated by USP28 in G2 phase, preventing its degradation.

Cellular localization

Nucleus.

Images



Immunoprecipitation - Anti-Claspin antibody
(ab3721)

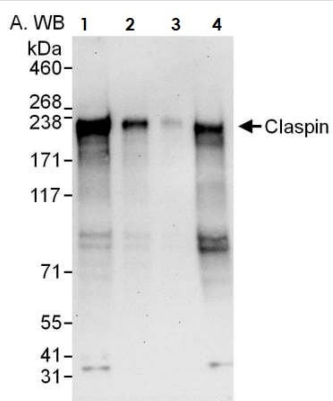
Claspin was immunoprecipitated from HeLa whole cell lysate (1 mg per IP reaction, 20% loaded) with ab3721 at 6 µg per reaction. Western blot was performed on the immunoprecipitate using ab3721 at 0.1 µg/mL.

Lane 1: ab3721 IP in HeLa whole cell lysate.

Lane 2: ab3721 IP in HeLa whole cell lysate.

Lane 3: Control IgG in HeLa whole cell lysate.

Detection: Chemiluminescence with an exposure time of 10 seconds



Western blot - Anti-Claspin antibody (ab3721)

All lanes : Anti-Claspin antibody (ab3721) at 0.1 µg/ml

Lane 1 : HeLa whole cell lysate at 50 µg

Lane 2 : HeLa whole cell lysate at 15 µg

Lane 3 : HeLa whole cell lysate at 5 µg

Lane 4 : HEK293T whole cell lysate at 50 µg

Predicted band size: 150 kDa

Exposure time: 30 seconds

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