

## Product datasheet

# Anti-Smg1 antibody ab30916

★★★★★ 3 Abreviews 4 References 画像数 3

### 製品の概要

製品名	Anti-Smg1 antibody
製品の詳細	Rabbit polyclonal to Smg1
由来種	Rabbit
アプリケーション	適用あり: ICC/IF, WB
種交差性	交差種: Mouse, Human 交差が予測される動物種: Xenopus laevis
免疫原	Synthetic peptide conjugated to KLH derived from within residues 3600 - C-terminus of Human Smg1. Immunogen の所有権に関して (Peptide available as <a href="#">ab31816</a> .)
ポジティブ・コントロール	HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate, Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate, A431 (Human epithelial carcinoma cell line) Whole Cell Lysate.

### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
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

Our [Abpromise guarantee](#) covers the use of **ab30916** in the following tested applications.

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

アプリケーション	Abreviews	特記事項
ICC/IF	★★★★☆	

アプリケーション	Abreviews	特記事項
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WB



#### 追加情報

ICC/IF: Use at 1:200 (See Abreview Feb 20 2007).

WB: Use at a concentration of 1 µg/ml. Detects a band of approximately 340 kDa (predicted molecular weight: 340 kDa).

Not yet tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

#### ターゲット情報

##### 機能

Serine/threonine protein kinase involved in both mRNA surveillance and genotoxic stress response pathways. Recognizes the substrate consensus sequence [ST]-Q. Plays a central role in nonsense-mediated decay (NMD) of mRNAs containing premature stop codons by phosphorylating UPF1/RENT1. Recruited by release factors to stalled ribosomes together with SMG8 and SMG9 (forming the SMG1C protein kinase complex), and UPF1 to form the transient SURF (SMG1-UPF1-eRF1-eRF3) complex. In EJC-dependent NMD, the SURF complex associates with the exon junction complex (EJC) through UPF2 and allows the formation of an UPF1-UPF2-UPF3 surveillance complex which is believed to activate NMD. Also acts as a genotoxic stress-activated protein kinase that displays some functional overlap with ATM. Can phosphorylate p53/TP53 and is required for optimal p53/TP53 activation after cellular exposure to genotoxic stress. Its depletion leads to spontaneous DNA damage and increased sensitivity to ionizing radiation (IR). May activate PRKCI but not PRKCZ.

##### 組織特異性

Widely expressed, with highest level in heart and skeletal muscle. Expressed in placenta, brain, lung and spleen, but not in liver.

##### 配列類似性

Belongs to the PI3/PI4-kinase family.

Contains 1 FAT domain.

Contains 1 FATC domain.

Contains 1 HEAT repeat.

Contains 1 PI3K/PI4K domain.

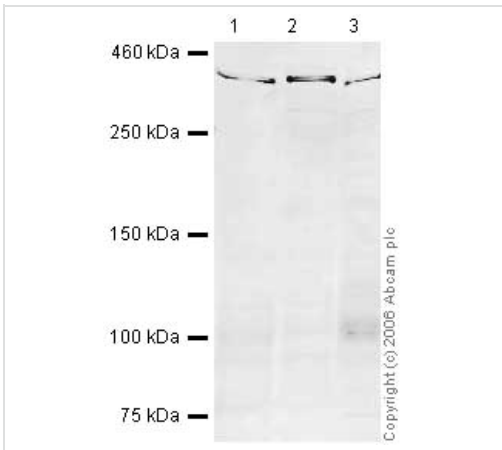
##### 翻訳後修飾

Autophosphorylated.

##### 細胞内局在

Nucleus. Cytoplasm.

#### 画像



Western blot - Anti-Smg1 antibody (ab30916)

**All lanes** : Anti-Smg1 antibody (ab30916) at 1 µg/ml

**Lane 1** : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate at 10 µg

**Lane 2** : Jurkat whole cell lysate (ab7899) at 10 µg

**Lane 3** : A431 whole cell lysate (ab7909) at 20 µg

### Secondary

**All lanes** : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/15000 dilution

Performed under reducing conditions.

**Predicted band size:** 340 kDa

**Observed band size:** 340 kDa

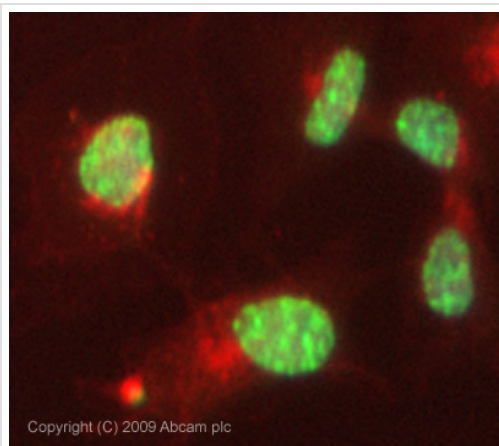
The band at 340kDa is likely to represent isoform 3 of Smg1. The immunogen is present in all three isoforms of Smg1.



Immunocytochemistry/ Immunofluorescence - Anti-Smg1 antibody (ab30916)

This image is courtesy of an Abreview submitted by Dr Kirk McManus

ab30916 (1/200) staining Smg1 by ICC/IF in asynchronous HeLa Cells (green). Cells were countersatined with DAPI (red) in order to show the nucleus. Secondary antibody: Goat anti-Rabbit conjugated to Cy3®. Please refer to abreview for further details.



Immunocytochemistry/ Immunofluorescence - Anti-Smg1 antibody (ab30916)

ICC/IF image of ab30916 stained HepG2 cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab30916, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM. This antibody also gave a positive result in 4% PFA fixed (10 min) HeLa, Hek293 and MCF7 cells at 5µg/ml, and in 100% methanol fixed (5 min) HeLa, Hek293, HepG2 and MCF7 cells at 5µg/ml

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