# abcam

# Product datasheet

# Anti-mTOR antibody ab2833

★★★★★ 1 Abreviews 15 References 画像数 2

#### 製品の概要

製品名 Anti-mTOR antibody

製品の詳細 Rabbit polyclonal to mTOR

由来種 Rabbit

**アプリケーション 適用あり:** IP, WB **種交差性 交差種:** Human

交差が予測される動物種: Mouse, Rat 🔷

免疫原 Synthetic peptide within Human mTOR aa 200-300. The exact immunogen sequence used to

generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please **contact** our Scientific Support

team to discuss your requirements. NP\_004949.1 (GeneID 2475).

Database link: P42345

ポジティブ・コントロール WB: HeLa and HEK-293T whole cell lysate. IP: mTOR IP in HeLa whole cell lysate.

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: 7

Preservative: 0.1% Sodium azide

Constituents: 0.021% PBS, 1.764% Sodium citrate, 1.815% Tris

精製度 Immunogen affinity purified

**ポリ/モノ** ポリクローナル

アイソタイプ IgG

1

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab2833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
IP		Use at 2-10 μg/mg of lysate.
WB	<b>★★★</b> ☆☆ (1)	1/1000 - 1/5000. Detects a band of approximately 289 kDa (predicted molecular weight: 289 kDa).

#### ターゲット情報

#### 機能

Kinase subunit of both mTORC1 and mTORC2, which regulates cell growth and survival in response to nutrient and hormonal signals. mTORC1 is activated in response to growth factors or amino-acids. Growth factor-stimulated mTORC1 activation involves AKT1-mediated phosphorylation of TSC1-TSC2, which leads to the activation of the RHEB GTPase that potently activates the protein kinase activity of mTORC1. Amino-acid-signaling to mTORC1 requires its relocalization to the lysosomes mediated by the Ragulator complex and the Rag GTPases. Activated mTORC1 up-regulates protein synthesis by phosphorylating key regulators of mRNA translation and ribosome synthesis, mTORC1 phosphorylates EIF4EBP1 and releases it from inhibiting the elongation initiation factor 4E (eiF4E). mTORC1 phosphorylates and activates S6K1 at 'Thr-421', which then promotes protein synthesis by phosphorylating PDCD4 and targeting it for degradation. Phosphorylates MAF1 leading to attenuation of its RNA polymerase Ill-repressive function. mTORC2 is also activated by growth. factors, but seems to be nutrientinsensitive. mTORC2 seems to function upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors. mTORC2 promotes the serum-induced formation of stress-fibers or F-actin. mTORC2 plays a critical role in AKT1 'Ser-473' phosphorylation, which may facilitate the phosphorylation of the activation loop of AKT1 on 'Thr-308' by PDK1 which is a prerequisite for full activation. mTORC2 regulates the phosphorylation of SGK1 at 'Ser-422'. mTORC2 also modulates the phosphorylation of PRKCA on 'Ser-657'.

#### 組織特異性

Expressed in numerous tissues, with highest levels in testis.

#### 配列類似性

Belongs to the Pl3/Pl4-kinase family.

Contains 1 FAT domain.
Contains 1 FATC domain.
Contains 7 HEAT repeats.
Contains 1 PI3K/PI4K domain.

### 翻訳後修飾

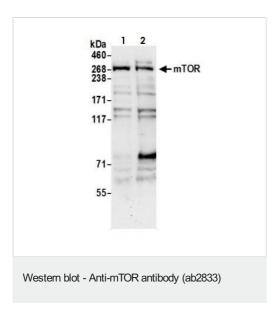
Autophosphorylated; when part of mTORC1 or mTORC2.

# 細胞内局在

Endoplasmic reticulum membrane. Golgi apparatus membrane. Mitochondrion outer membrane. Lysosome. Cytoplasm. Nucleus > PML body. Shuttles between cytoplasm and nucleus. Accumulates in the nucleus in response to hypoxia (By similarity). Targeting to lysosomes

depends on amino acid availability and RRAGA and RRAGB.

#### 画像



All lanes: Anti-mTOR antibody (ab2833) at 0.4 µg/ml

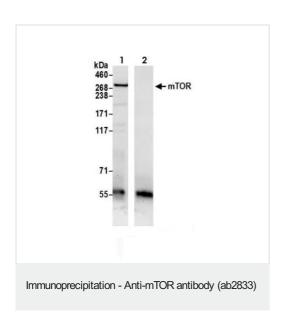
**Lane 1 :** HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

**Lane 2**: HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

Lysates/proteins at 50 µg per lane.

Predicted band size: 289 kDa

Exposure time: 30 seconds



Lysates prepared using NETN lysis buffer.

Samples: Whole cell lysate (0.5 or 1.0 mg per IP reaction; 20% of IP loaded) from HeLa cells prepared using NETN lysis buffer.

Lane 1: ab2833 used for IP at 6 µg per reaction.

Lane 2: Control IgG.

For blotting immunoprecipitated mTOR, ab2833 was used at 1 µg/ml.

Detection: Chemiluminescence with an exposure time of 30 seconds.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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