abcam

Product datasheet

Anti-HSF1 (phospho S303) antibody ab47369

6 References 画像数 3

製品の概要

製品名 Anti-HSF1 (phospho S303) antibody

製品の詳細 Rabbit polyclonal to HSF1 (phospho S303)

由来種 Rabbit

アプリケーション 適用あり: WB, IHC-P, ICC/IF

種交差性 交差種: Human

免疫原 Synthetic peptide corresponding to Human HSF1 aa 250-350 (phospho S303).

Database link: Q00613

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.

パッファー pH: 7.40

Preservative: 0.02% Sodium azide

Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.87% Sodium chloride

Without Mg+2 and Ca+2

精製度 Immunogen affinity purified

特記事項(精製) The antibody was affinity purified from rabbit antiserum by affinity chromatography using epitope

specific phosphopeptide. The antibody against non phosphopeptide was removed by chromatography using non phosphopeptide corresponding to the phosphorylation site.

ポリ/モノ ポリクローナル

アイソタイプ lgG

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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ab47369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 |
|----------|-----------|---|
| WB | | 1/500 - 1/1000. Predicted molecular weight: 57 kDa. |
| IHC-P | | Use at an assay dependent concentration. |
| ICC/IF | | Use a concentration of 1 - 5 μg/ml. |

ターゲット情報

機能 DNA-binding protein that specifically binds heat shock promoter elements (HSE) and activates

transcription. In higher eukaryotes, HSF is unable to bind to the HSE unless the cells are heat

shocked.

配列類似性 Belongs to the HSF family.

the 9aaTAD motif is a transactivation domain present in a large number of yeast and animal

transcription factors.

翻訳後修飾 Phosphorylated on multiple serine residues, a subset of which are involved in stress-related

regulation of transcription activation. Constitutive phosphorylation represses transcriptional activity at normal temperatures. Levels increase on specific residues heat-shock and enhance HSF1 transactivation activity. Phosphorylation on Ser-307 derepresses activation on heat-stress and in combination with Ser-303 phosphorylation appears to be involved in recovery after heat-stress. Phosphorylated on Ser-230 by CAMK2, in vitro. Cadmium also enhances phosphorylation at this site. Phosphorylation on Ser-303 is a prerequisite for HSF1 sumoylation. Phosphorylation on Ser-121 inhibits transactivation and promotes HSP90 binding. Phosphorylation on Thr-142 also mediates transcriptional activity induced by heat. Phosphorylation on Ser-326 plays an

important role in heat activation of HSF1 transcriptional activity.

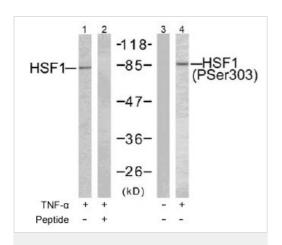
Sumoylated with SUMO1 and SUMO2 on heat-shock. Heat-inducible sumoylation occurs after 15 min of heat-shock, after which levels decrease and at 4 hours, levels return to control levels. Sumoylation has no effect on HSE binding nor on transcriptional activity. Phosphorylation on Ser-

303 is a prerequisite for sumoylation.

細胞内局在 Cytoplasm. Nucleus. Cytoplasmic during normal growth. On activation, translocates to nuclear

stress granules. Colocalizes with SUMO1 in nuclear stress granules.

画像



Western blot - Anti-HSF1 (phospho S303) antibody (ab47369)

Lanes 1-2: HSF1 antibody at 1/500 dilution

Lanes 3-4: Anti-HSF1 (phospho S303) antibody (ab47369) at 1/500 dilution

Lanes 1 & 4: Extracts from MCF cells treated with TNF alpha (20ng/ml, 30min). No peptide.

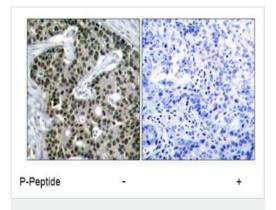
 $\textbf{Lane 2:} \ \textbf{Extracts from MCF cells treated with TNF alpha (20ng/ml,}$

30min). Synthetic phosphopeptide present.

Lane 3: Extracts from MCF cells not treated

with TNF alpha. No peptide.

Predicted band size: 57 kDa
Observed band size: 85 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-HSF1 (phospho S303) antibody (ab47369)

ab47369 (1/50) staining HSF1 in paraffin-embedded human breast carcinoma tissue. Right-hand panel corresponds to a negative control for which ab47369 was pre-incubated with the immunising (blocking) peptide.

Immunocytochemistry/ Immunofluorescence - Anti-HSF1 (phospho S303) antibody (ab47369) ICC/IF image of ab47369 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 (ab47369, 1µg/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

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