abcam

Product datasheet

Anti-G3BP (phospho S232) antibody ab131243

3 Images

Overview

Product name	Anti-G3BP (phospho S232) antibody
Description	Rabbit polyclonal to G3BP (phospho S232)
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Hela cells; Extracts from 293 cells treated with starvation; Human breast carcinoma tissue.
General notes	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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.88% Sodium chloride PBS without Mg^{2+} and Ca^{2+}
Purity	Immunogen affinity purified
Purification notes	ab131243 was purified by affinity chromatography using peptide-specific phosphopeptide. Non-phosphosepcific antibodies were removed by chromatography using non-specific peptide.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab131243 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		1/500 - 1/1000. Predicted molecular weight: 52 kDa.
IHC-P		1/50 - 1/100.
ICC/IF		1/100 - 1/200.

Target

Function May be a regulated effector of stress granule assembly. Phosphorylation-dependent sequence-specific endoribonuclease in vitro. Cleaves exclusively between cytosine and adenine and cleaves MYC mRNA preferentially at the 3'-UTR. ATP- and magnesium-dependent helicase. Unwinds preferentially partial DNA and RNA duplexes having a 17 bp annealed portion and either a hanging 3' tail or hanging tails at both 5'- and 3'-ends. Unwinds DNA/DNA, RNA/DNA, and RNA/RNA substrates with comparable efficiency. Acts unidirectionally by moving in the 5' to 3' direction along the bound single-stranded DNA.

Tissue specificity Ubiquitous.

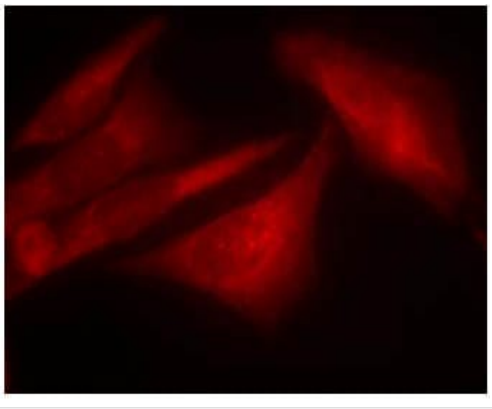
Sequence similarities Contains 1 NTF2 domain.
Contains 1 RRM (RNA recognition motif) domain.

Domain The NTF2 domain mediates multimerization.

Post-translational modifications Phosphorylated exclusively on serine residues. Hyperphosphorylated in quiescent fibroblasts. Hypophosphorylation leads to a decrease in endoribonuclease activity (By similarity). RASA1-dependent phosphorylation of Ser-149 induces a conformational change that prevents self-association. Dephosphorylation after HRAS activation is required for stress granule assembly. Ser-149 phosphorylation induces partial nuclear localization.
Arg-435 is dimethylated, probably to asymmetric dimethylarginine.

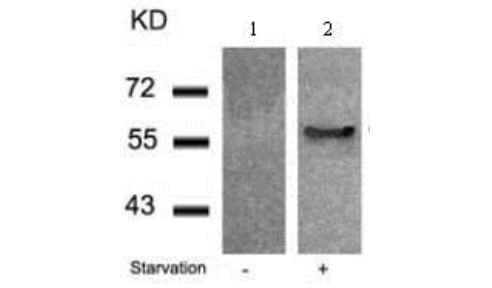
Cellular localization Cytoplasm. Cytoplasm > cytosol. Cell membrane. Nucleus. Cytoplasmic in proliferating cells, can be recruited to the plasma membrane in exponentially growing cells (By similarity). Cytosolic and partially nuclear in resting cells. Recruited to stress granules (SGs) upon either arsenite or high temperature treatment. Recruitment to SGs is influenced by HRAS.

Images



Immunocytochemistry/ Immunofluorescence - Anti-G3BP (phospho S232) antibody (ab131243)

Immunofluorescence analysis of methanol-fixed Hela cells labelling G3BP (phospho S232) with ab131243 at 1/100 dilution.

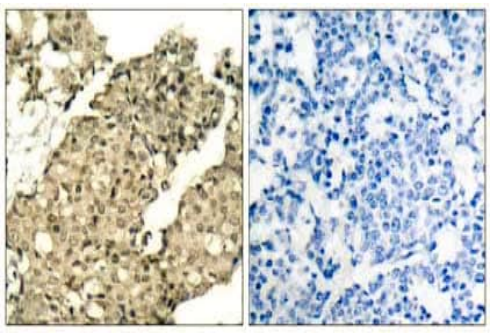


Western blot - Anti-G3BP (phospho S232) antibody (ab131243)

All lanes : Anti-G3BP (phospho S232) antibody (ab131243) at 1/500 dilution

Lane 1 : Untreated 293 cell extract
Lane 2 : Extract from 293 cells treated with starvation

Predicted band size: 52 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-G3BP (phospho S232) antibody (ab131243)

Immunohistochemical analysis of paraffin-embedded Human breast carcinoma tissue labelling G3BP (phospho S232) with ab131243 at 1/50 dilution. Right panel was preincubated with blocking peptide.

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