G3BP1 (Phospho Ser232) Rabbit pAb

CatalogNo: YP0117 Orthogonal Validated

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse

Applications
- WB,IHC,IF,ELISA

MW
- 60kD (Observed)

Isotype
- IgG

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-1:2000
IHC 1:100-1:300
ELISA 1:5000
IF 1:50-200

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human G3BP-1 around the phosphorylation site of Ser232. AA range:216-248

Specificity Phospho-G3BP1 (S232) Polyclonal Antibody detects endogenous levels of G3BP1 protein only when phosphorylated at S232.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):SSsPA

Target Information

Gene name G3BP1 G3BP

Protein Name Ras GTPase-activating protein-binding protein 1

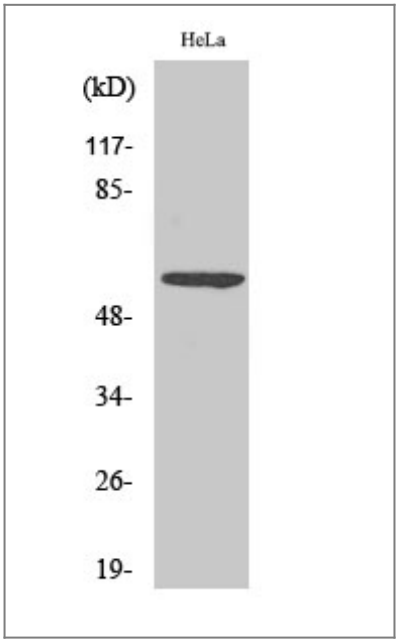
Organism	Gene ID	UniProt ID
Human	10146;	Q13283;
Mouse	27041;	P97855;

Cellular Localization Cytoplasm, cytosol . Perikaryon . Cytoplasm, Stress granule . Nucleus . Cytoplasmic in proliferating cells (PubMed:11604510). Cytosolic and partially nuclear in resting cells (PubMed:11604510). Recruited to stress granules in response to arsenite treatment (PubMed:12642610, PubMed:20180778). The unphosphorylated form is recruited to stress granules (PubMed:12642610). HRAS signaling contributes to this process by regulating G3BP dephosphorylation (PubMed:12642610). .

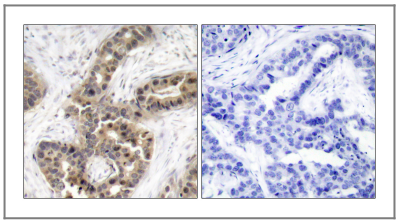
Tissue specificity Ubiquitous.

Function cofactor:Magnesium. Required for helicase activity.,Domain:The NTF2 domain mediates multimerization.,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.,PTM:Arg-435 is dimethylated, probably to asymmetric dimethylarginine.,PTM: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.,similarity:Contains 1 NTF2 domain.,similarity:Contains 1 RRM (RNA recognition motif) domain.,subcellular location: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.,subunit:Binds to the SH3 domain of Ras GTPase-activating protein (RASA1) in proliferating cells. No interaction in quiescent cells Component of a TAU mRNP complex, at least composed of IGF2BP1, ELAVL4 and G3BP (By similarity). Interacts with USP10, and may regulate it. Forms homodimers and oligomers.,tissue specificity:Ubiquitous.,

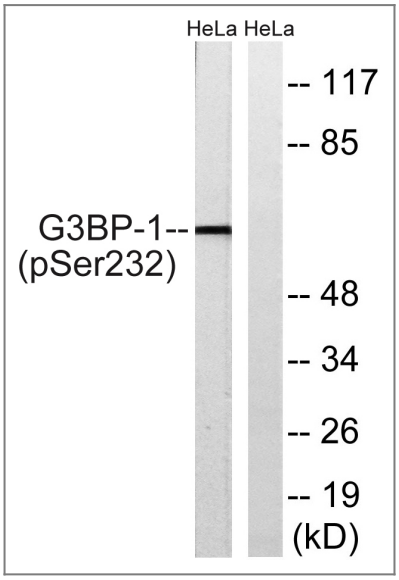
Validation Data



Western Blot analysis of various cells using Phospho-G3BP1 (S232) Polyclonal Antibody



Immunohistochemistry analysis of paraffin-embedded human breast cancer, using G3BP-1 (Phospho-Ser232) Antibody. The picture on the right is blocked with the G3BP-1 (Phospho-Ser232) peptide.



Western blot analysis of extracts from HeLa cells, using G3BP-1 (Phospho-Ser232) Antibody. The lane on the right is treated with the synthesized peptide.

Contact information

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Please scan the QR code to access additional product information:
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