

G3BP1 (PT1039R) PT® Rabbit mAb

CatalogNo: YM8828 **Recombinant** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC, IF, IP, ELISA

MW

- 52kD (Calculated)
- 68kD (Observed)

Isotype

- IgG, Kappa

Recommended Dilution Ratios

IHC 1:200-1:1000

WB 1:2000-1:10000

IF 1:200-1:1000

ELISA 1:5000-1:20000

IP 1:50-1:200

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

Basic Information

Clonality Monoclonal

Clone Number PT1039R

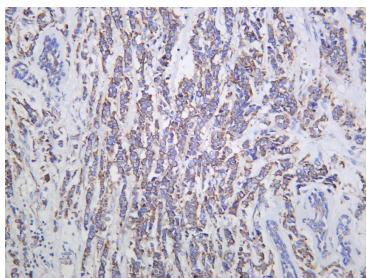
Immunogen Information

Specificity Endogenous

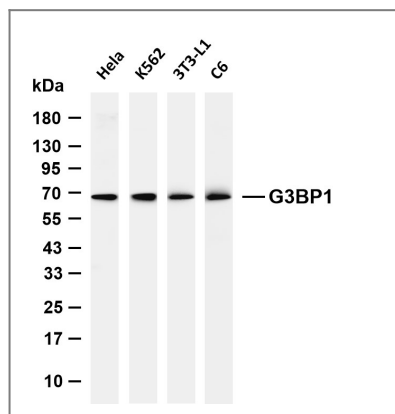
| Target Information

Gene name	G3BP1		
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



Human breast carcinoma was stained with anti-G3BP1 (PT1039R) Rabbit antibody



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-G3BP1 (PT1039R) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: HeLa Lane 2: K562 Lane 3: 3T3-L1 Lane 4: C6 Predicted band size: 52kDa Observed band size: 68kDa

Contact information

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PT® Rabbit mAb

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