



Rabbit Anti-G3BP1 antibody

SL4111R

Product Name:	G3BP1
Chinese Name:	Ras GTP酶活化蛋白Binding protein1 抗体
Alias:	ATP dependent DNA helicase VIII; G3BP; G3BP1; GAP binding protein; GAP SH3 domain binding protein 1; HDH VIII; MGC111040; Ras GTPase activating protein binding protein 1; Ras GTPase activating protein SH3 domain binding protein; RasGAP associated endoribonuclease G3BP.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	51kDa
Cellular localization:	The nucleuscytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human G3BP1:361-466/466
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	This gene encodes one of the DNA-unwinding enzymes which prefers partially unwound 3'-tailed substrates and can also unwind partial RNA/DNA and RNA/RNA duplexes in an ATP-dependent fashion. This enzyme is a member of the heterogeneous nuclear RNA-binding proteins and is also an element of the Ras signal transduction

pathway. It binds specifically to the Ras-GTPase-activating protein by associating with its SH3 domain. Several alternatively spliced transcript variants of this gene have been described, but the full-length nature of some of these variants has not been determined. [provided by RefSeq].

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.

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.

Subcellular Location:

Cytoplasm. Cytoplasm, cytosol. Cell membrane. Nucleus. Note=Cytoplasmic in proliferating cells, can be recruited to the plasma membrane in exponentially growing cells. 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.

Tissue Specificity:

Ubiquitous.

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.

Similarity:

Contains 1 NTF2 domain.

Contains 1 RRM (RNA recognition motif) domain.

SWISS:

Q13283

Gene ID:
10146

Database links:

[Entrez Gene: 10146](#) Human

[Omim: 608431](#) Human

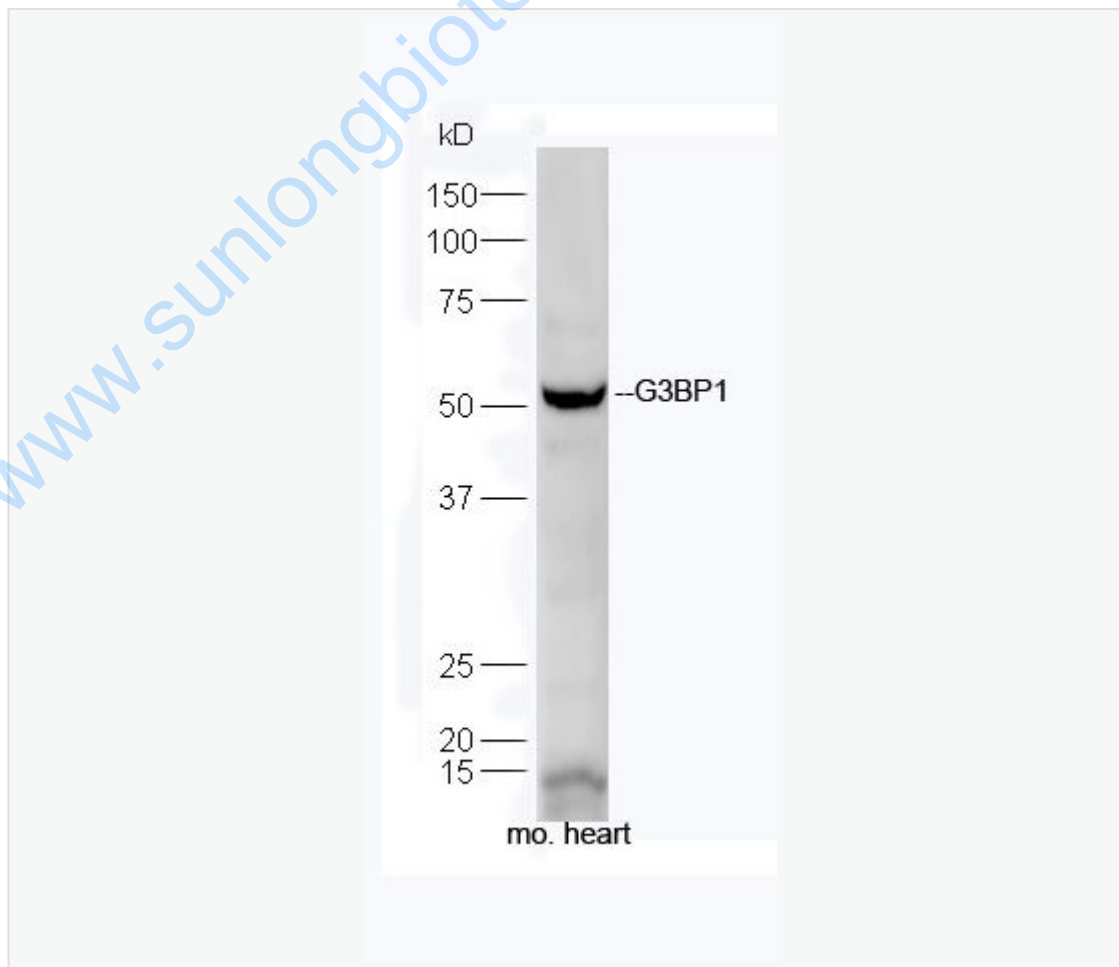
[SwissProt: Q13283](#) Human

[Unigene: 587054](#) Human

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample: Heart (Mouse) Lysate at 40 ug

Primary: Anti-G3BP1 (SL4111R) at 1/300 dilution

Secondary: HRP conjugated Goat-Anti-rabbit IgG (SL4111R) at 1/5000 dilution

Predicted band size: 51 kD

Observed band size: 51 kD

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