

## Rabbit anti-Human, Mouse G3BP-1 Polyclonal Antibody | anti-G3BP-1 antibody

G3BP-1 Antibody

| CATALOG # | HOST   | REACTIVITY   | APPLICATIONS                              |
|-----------|--------|--------------|-------------------------------------------|
| AAA322407 | Rabbit | Human, Mouse | ELISA, Immunohistochemistry, Western Blot |

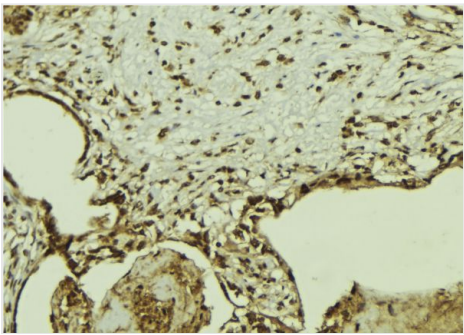
### PRODUCT SYNONYMS

G3BP-1; Polyclonal Antibody; G3BP-1 Antibody; ATP dependent DNA helicase VIII; ATP-dependent DNA helicase VIII; G3BP; G3BP stress granule assembly factor 1; G3bp1; G3BP1\_HUMAN; GAP binding protein; GAP SH3 domain binding protein 1; GAP SH3 domain-binding protein 1; GTPase activating protein (SH3 domain) binding protein 1; hDH VIII; Human DNA helicase VIII; MGC111040; Ras GTPase activating protein binding protein 1; Ras GTPase activating protein SH3 domain binding protein; Ras GTPase-activating protein-binding protein 1; RasGAP associated endoribonuclease G3BP; anti-G3BP-1 antibody

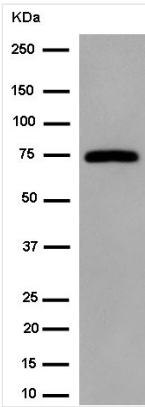
### PRODUCT SPECIFICATIONS

|                                                  |                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                             | Rabbit                                                                                                                                                                                                                                                                                                                                                                 |
| Reactivity                                       | Human, Mouse                                                                                                                                                                                                                                                                                                                                                           |
| Clonality                                        | Polyclonal                                                                                                                                                                                                                                                                                                                                                             |
| Isotype                                          | IgG                                                                                                                                                                                                                                                                                                                                                                    |
| Specificity                                      | G3BP-1 antibody detects endogenous levels of total G3BP-1                                                                                                                                                                                                                                                                                                              |
| Purity/Purification                              | The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.                                                                                                                                                                                                                                                                          |
| Form/Format                                      | Liquid<br>Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.                                                                                                                                                                                                                                                                          |
| Concentration                                    | 1mg/ml (varies by lot)                                                                                                                                                                                                                                                                                                                                                 |
| Sequence Length                                  | 466                                                                                                                                                                                                                                                                                                                                                                    |
| Applicable Applications for anti-G3BP-1 antibody | ELISA, IHC (Immunohistochemistry), WB (Western Blot)                                                                                                                                                                                                                                                                                                                   |
| Immunogen                                        | A synthesized peptide derived from human G3BP-1                                                                                                                                                                                                                                                                                                                        |
| Subcellular Location                             | 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. |
| Tissue Specificity                               | Ubiquitous.                                                                                                                                                                                                                                                                                                                                                            |
| Predicted Cross Reactivity                       | <b>Pig, Bovine, Horse, Sheep, Dog</b>                                                                                                                                                                                                                                                                                                                                  |
| Similarity                                       | Pig (91%), Bovine (91%), Horse (100%), Sheep (91%), Dog (90%)                                                                                                                                                                                                                                                                                                          |
| Conjugation                                      | Unconjugated                                                                                                                                                                                                                                                                                                                                                           |
| Preparation and Storage                          | Store at -20 degree C. Stable for 12 months from date of receipt.                                                                                                                                                                                                                                                                                                      |

IMAGES



**IHC (Immunohistochemistry)**  
AAA322407 at 1/100 staining Mouse colon tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



**WB (Western Blot)**  
Western blot analysis of G3BP-1 expression in 293 whole cell lysates

ADDITIONAL INFORMATION

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|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for anti-G3BP-1 antibody</b> | <p>Description: G3BP-1 an hnRNA-binding protein and endoribonuclease that participates in the Ras signal transduction pathway. A regulated effector of stress granule (SG) assembly. SGs are involved in mRNA sorting in the storing of untranslated mRNAs.</p> <p>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.</p> <p>Subunit Structure: 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 G3BP1 (By similarity). Interacts with USP10, and may regulate it. Forms homodimers and oligomers. Interacts with RPTOR and SPAG5; this complex is increased by oxidative stress. Interacts with ATXN2L (PubMed:23209657).</p> <p>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.</p> <p>Similarity: The NTF2 domain mediates multimerization.</p> |
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NCBI AND UNIPROT INFORMATION

|                                  |                                                 |
|----------------------------------|-------------------------------------------------|
| NCBI GI #                        | 5031703                                         |
| NCBI GeneID                      | 10146                                           |
| NCBI Accession #                 | NP_005745.1                                     |
| NCBI GenBank Nucleotide #        | NM_005754.2                                     |
| UniProt Accession #              | Q13283; Q5HYE9                                  |
| Molecular Weight                 | Observed: 60 kDa<br>Predicted: 53 kDa           |
| NCBI Official Full Name          | ras GTPase-activating protein-binding protein 1 |
| NCBI Official Synonym Full Names | G3BP stress granule assembly factor 1           |
| NCBI Official Symbol             | G3BP1                                           |
| NCBI Official Synonym Symbols    | G3BP; HDH-VIII                                  |
| NCBI Protein Information         | ras GTPase-activating protein-binding protein 1 |

|                            |                                                 |
|----------------------------|-------------------------------------------------|
| UniProt Protein Name       | Ras GTPase-activating protein-binding protein 1 |
| UniProt Gene Name          | G3BP1                                           |
| UniProt Synonym Gene Names | G3BP; G3BP-1; hDH VIII                          |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/g3bp-1-antibody-immunohistochemistry-western-blot-elisa/322407>