

[KO Validated] Anti-G3BP1 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

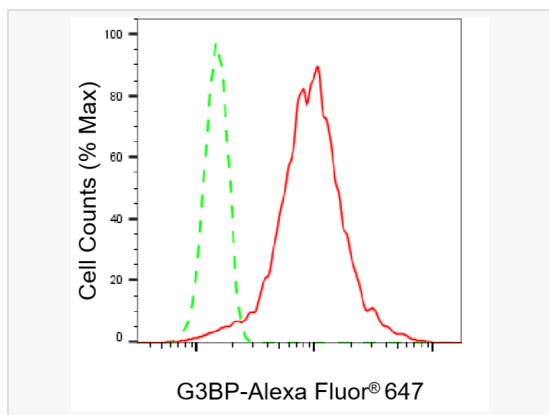
Catalog # R020154

Product Information

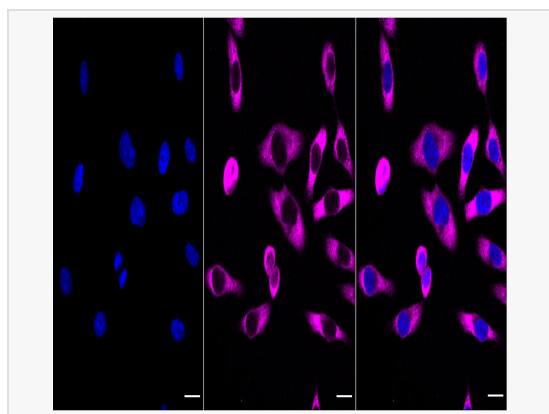
| | |
|-------------|---|
| Application | WB, FC, IF (Cell)/ICC |
| Reactivity | Human, Mouse, Rat |
| Dilution | WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000 |
| Host | Rabbit |
| Clonality | Monoclonal |
| Clone No. | 48S21F03 |
| Isotype | IgG |
| Label | Unconjugated |
| Immunogen | A synthesized peptide derived from human G3BP |
| Format | Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3. |
| Storage | Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage. |
| Precautions | [KO Validated] Anti-G3BP1 Rabbit mAb [48S21F03] is for research use only and not for use in diagnostic or therapeutic procedures. |

Protein Information

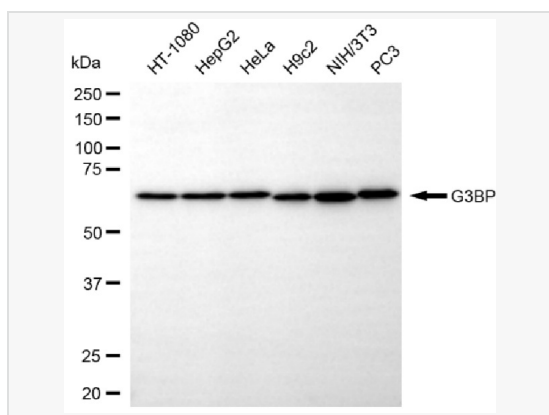
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| Synonyms | G3BP1; G3BP Stress Granule Assembly Factor 1; G3BP; HDH-VIII; Ras-GTPase-Activating Protein SH3-Domain-Binding Protein; GTPase Activating Protein (SH3 Domain) Binding Protein 1; Ras GTPase-Activating Protein-Binding Protein 1; GAP SH3 Domain-Binding Protein 1; ATP-Dependent DNA Helicase VIII; DNA Helicase VIII; G3BP-1; RasGAP-Associated Endoribonuclease G3BP; GAP Binding Protein; EC 3.6.4.12; EC 3.6.4.13; HDH VIII; EC 3.6.1. |
| Calculated MW | Calculated MW: 52 kDa; Observed MW: 68 kDa |
| Uniprot ID | Q13283 |
| Gene ID | 10146 |
| Background | 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, Jul 2008] |
| Cellular Location | 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). |



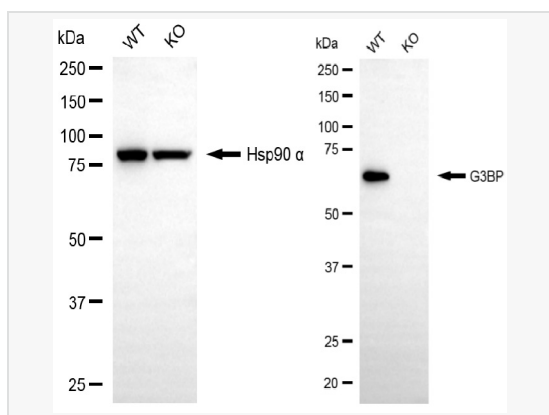
Flow cytometric analysis of G3BP expression in HepG2 cells using G3BP antibody (R020154, 1:2,000). Green, isotype control; red, G3BP.



Immunocytochemical staining of HepG2 cells with G3BP antibody (R020154, 1:1,000). Nuclei were stained blue with DAPI; G3BP was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar, 20 μ m.



Western blotting analysis using G3BP antibody (R020154). Total cell lysates (30 μ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with G3BP antibody (R020154, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using G3BP antibody (R020154). G3BP expression in wild-type (WT) and G3BP knockout (KO) 293T cells with 20 μ g of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with G3BP antibody (R020154, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.