

G3BP1 Recombinant Mouse mAb

Catalog # AP96394

Product Information

Application	WB
Reactivity	Human
Host	Mouse
Clonality	Recombinant
Physical State	Liquid
Isotype	IgG1, Kappa
Purity	affinity purified by Protein G
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 NTF2 domain. Contains 1 RRM (RNA recognition motif) domain.
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.
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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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].

Additional Information

Other Names	G3BP; HDH-VIII; G3BP1_HUMAN; G3BP1; G3BP-1; ATP-dependent DNA helicase VIII (hDH VIII); GAP SH3 domain-binding protein 1; 3.6.4.12; 3.6.4.13; G3BP stress granule assembly factor 1; GTPase activating protein (SH3 domain) binding protein 1; Rasputin homolog; Ras-GTPase-activating protein SH3-domain-binding protein; DNA helicase VIII
Dilution	WB=1:500-2000, ICC/IF=1:50-200, Flow-Cyt=1:50-100

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.
Name	G3BP1 Recombinant Mouse mAb
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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.