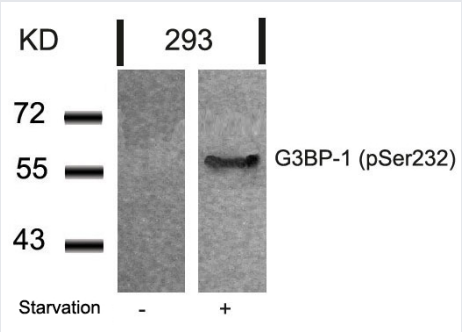
G3BP-1 Antibody – Rabbit Polyclonal

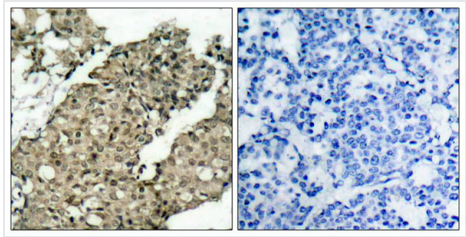
PRODUCT OVERVIEW

Product Name	G3BP-1, Polyclonal Antibody
Full Product Name	G3BP-1 (Phospho-Ser232) Antibody
Product Gene Name	anti-G3BP-1 antibody
Product Synonym Names	G3BP; GAP SH3-domain binding protein 1
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatogramphy usi
Concentration	1.0 mg/ml (lot specific)
Specificity	The antibody detects endogenous level of G3BP-1 only when phosphorylated at serine 232.
Preparation and Storage	Store at -20 degree C for long term preservation (recommended). Store at 4 degree C for short term use.
Molecular Weight	13,874 Da
OMIM	608431
3D Structure	ModBase 3D Structure for Q13283
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of serine 232 (S-S-S(p)-P-A) derived from Human G3BP-1.
Modification	Phospho-Ser232
Target Name	G3BP-1
Product Categories/Family for anti-G3BP-1 antibody	Phospho-specific Ab
Applications Tested/Suitable for anti-G3BP-1 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)
Application Notes for anti-G3BP-1 antibody	Western blotting: 1:500~1:1000 Immunohistochemistry: 1:50~1:100 Immunofluorescence: 1:100~1:200
Related Product Information for anti-G3BP-1 antibody	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.
Other Notes	Small volumes of anti-G3BP-1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

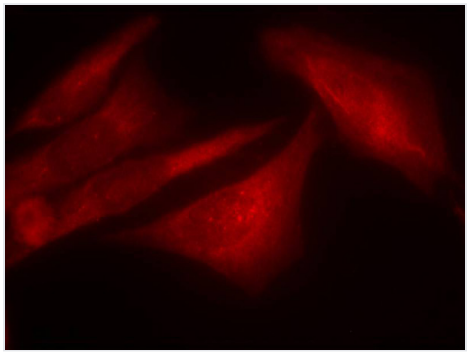
Searchable Terms for G3BP-1 purchase	MBS9401958 is an antibody targeting G3BP-1. Also known as G3BP-1 (Phospho-Ser232) Antibody. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-G3BP-1 antibody
Western blot analysis of extracts from 293 cells untreated or treated with starvation using G3BP-1(Phospho-Ser232) Antibody.



Immunohistochemistry (IHC) of anti-G3BP-1 antibody
Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using G3BP-1(Phospho-Ser232) Antibody (left) or the same antibody preincubated with blocking peptide(right).



Immunofluorescence (IF) of anti-G3BP-1 antibody
Immunofluorescence staining of methanol-fixed Hela cells using G3BP-1(Phospho-Ser232) Antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for G3BP-1. It may not necessarily be applicable to this product.

NCBI GI #	5031703
NCBI GeneID	10146
NCBI Accession #	NP_005745.1
UniProt Primary Accession #	Q13283
UniProt Secondary Accession #	Q5HYE9
UniProt Related Accession #	Q13283
GenBank Nucleotide #	NM_005754.2
NCBI Official Full Name	ras GTPase-activating protein-binding protein 1
NCBI Official Synonym Full Names	GTPase activating protein (SH3 domain) binding protein 1
NCBI Official Symbol	G3BP1
NCBI Official Synonym Symbols	G3BP; HDH-VIII
UniProt Protein Name	Ras GTPase-activating protein-binding protein 1
UniProt Synonym Protein Names	ATP-dependent DNA helicase VIII; hDH VIII; GAP SH3 domain-binding protein 1
Protein Family	Ras GTPase-activating protein-binding protein
UniProt Gene Name	G3BP1

UniProt Synonym Gene Names	G3BP; G3BP-1; hDH VIII
UniProt Entry Name	G3BP1_HUMAN
NCBI Protein Information	ras GTPase-activating protein-binding protein 1
NCBI Summary for G3BP-1	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]
UniProt Comments for G3BP-1	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. 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. Binds to the SH3 domain of Ras GTPase-activating protein (RasGAP) in proliferating cells but not in quiescent cells. Cytoplasmic in proliferating cells, can be recruited to the plasma membrane in exponentially growing cells. Cytosolic and partially nuclear in resting cells. Recruited to SGs upon either arsenite or high temperature treatment. RasGAP-dependent phosphorylation of S149 induces a conformational change that prevents self-association. Dephosphorylation after HRAS activation is required for stress granule assembly. S149 phosphorylation induces partial nuclear localization. A component of a TAU mRNP complex, Interacts with USP10, and may regulate it. Protein type: EC 3.6.4.13; RNA-binding; Helicase; Adaptor/scaffold; EC 3.6.4.12 Chromosomal Location of Human Ortholog: 5q33.1 Cellular Component: focal adhesion; stress granule; cytoplasm; plasma membrane; nucleus; cytosol Molecular Function: ATP-dependent DNA helicase activity; mRNA binding; protein binding; DNA binding; endonuclease activity; ATP binding; ATP-dependent RNA helicase activity Biological Process: metabolic process; transport; Ras protein signal transduction; DNA duplex unwinding
Research Articles on G3BP-1	**1.** These findings disclose a novel mechanism of resveratrol-induced p53 activation and resveratrol-induced apoptosis by direct targeting of G3BP1.
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