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Anti-G3BP2 Antibody

Catalog # AP59784

Product Information

Application	WB, IF/IC
Primary Accession	Q9UN86
Reactivity	Human, Mouse, Rat, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	54121

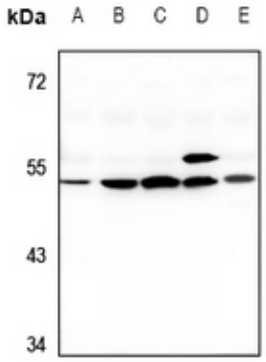
Additional Information

Gene ID	9908
Other Names	KIAA0660; Ras GTPase-activating protein-binding protein 2; G3BP-2; GAP SH3 domain-binding protein 2
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human G3BP2. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IP (1/10 - 1/100) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

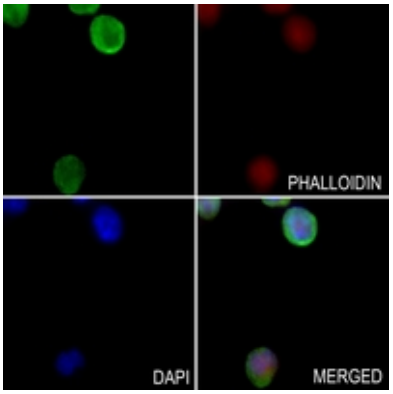
Protein Information

Name	G3BP2 {ECO:0000303|PubMed:23279204, ECO:0000312|HGNC:HGNC:30291}
Function	Scaffold protein that plays an essential role in cytoplasmic stress granule formation which acts as a platform for antiviral signaling (PubMed:23279204, PubMed:32302570, PubMed:32302571, PubMed:32302572). Plays an essential role in stress granule formation (PubMed:27022092, PubMed:32302570, PubMed:32302571, PubMed:32302572, PubMed:35977029). Stress granules are membraneless compartments that store mRNAs and proteins, such as stalled translation pre-initiation complexes, in response to stress (PubMed:32302570, PubMed:32302571, PubMed:32302572). Promotes formation of stress granules phase-separated membraneless compartment by undergoing liquid-liquid phase separation (LLPS) upon unfolded RNA-binding: functions as a molecular switch that triggers RNA-dependent LLPS in response to a rise in intracellular free RNA concentrations (By similarity).
Cellular Location	Cytoplasm. Cytoplasm, Stress granule

Images



Western blot analysis of G3BP2 expression in MCF7 (A), SKOVCAR3 (B), A549 (C), C6 (D), CT26 (E) whole cell lysates. (Predicted band size: 54 kD; Observed band size: 54; 51 kD)



Immunofluorescent analysis of G3BP2 staining in VB2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).