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orders@antibodiesinc.com
530-758-4400

PRODUCT DATASHEET

Anti-Grb2 Antibody

phosphosolutions ANTIBODIES THAT WORK

Product Details

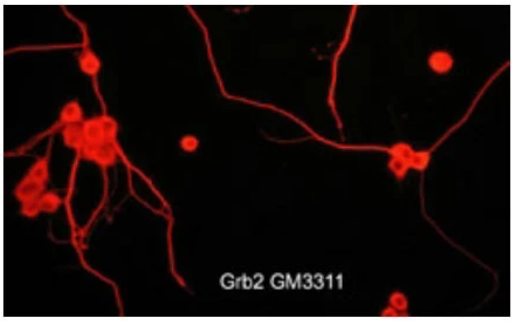
Available Variants	100 µL (SKU:GM3311)
Conjugate	Unconjugated
Isotype	IgG1
Clone	M331
Gene Name	GRB2
Host Species	Mouse
Format	Protein A Purified
Physical State	Liquid
Buffer	PBS + 1 mg/ml BSA, 0.05% NaN3 and 50% glycerol
Applications	ELISA, ICC, IP, WB
Dilution Ranges	WB: 1:1000 ICC: 1:50 IP: 1:50
Species Reactivity	Human, Mouse, Rat
Immunogen	Clone (M331) was generated from a full length recombinant rat Grb2 protein. This sequence has high homology to human and mouse Grb2.
Specificity	This antibody detects a 24 kDa* protein corresponding to the molecular mass of Grb2 on SDS-PAGE immunoblots of rat PC12.
Molecular Weight	24
Quality Control	Western blots performed on each lot.
Storage	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.

UniProt ID	P62994 UniProt Summary: Non-enzymatic adapter protein that plays a pivotal role in precisely regulated signaling cascades from cell surface receptors to cellular responses, including signaling transduction and gene expression. Thus, participates in many biological processes including regulation of innate and adaptive immunity, autophagy, DNA repair or necroptosis. Controls signaling complexes at the T-cell antigen receptor to facilitate the activation, differentiation, and function of T-cells. Mechanistically, engagement of the TCR leads to phosphorylation of the adapter protein LAT, which serves as docking site for GRB2. In turn, GRB2 establishes a a connection with SOS1 that acts as a guanine nucleotide exchange factor and serves as a critical regulator of KRAS/RAF1 leading to MAPKs translocation to the nucleus and activation. Functions also a role in B-cell activation by amplifying Ca(2+) mobilization and activation of the ERK MAP kinase pathway upon recruitment to the phosphorylated B-cell antigen receptor (BCR). Plays a role in switching between autophagy and programmed necrosis upstream of EGFR by interacting with components of necrosomes including RIPK1 and with autophagy regulators SQSTM1 and BECN1. Regulates miRNA biogenesis by forming a functional ternary complex with AGO2 and DICER1. Functions in the replication stress response by protecting DNA at stalled replication forks from MRE11-mediated degradation. Mechanistically, inhibits RAD51 ATPase activity to stabilize RAD51 on stalled replication forks. Additionally, directly recruits and later releases MRE11 at DNA damage sites during the homology-directed repair (HDR) process.
Country of Origin	United States
Shipping	Blue Ice
Expiration	After date of receipt, stable for at least 1 year at -20°C.
Usage Statement	For research use only. Not intended for therapeutic or diagnostic use. Use of all products is subject to our terms and conditions, which can be viewed on our website.
NCBI Gene ID	81504

Product Images



Western blot of rat PC12 cell lysate. The blot was probed with mouse monoclonal anti-Grb2 antibody at 1:250 (lane 1), 1:500 (lane 2), or 1:1000 (lane 3).



Immunocytochemical labeling of Grb2 in rat PC12 cells differentiated with NGF. The cells were labeled with mouse monoclonal Grb2 (GM3311) antibody, then detected using appropriate secondary antibody conjugated to Cy3.