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Goat anti-GRB2, biotinylated Antibody

Peptide-affinity purified goat antibody
Catalog # AF4351a

Specification

Goat anti-GRB2, biotinylated Antibody - Product Information

Application	**WB, Pep-ELISA**
Primary Accession	P62993
Other Accession	NP_002077.1, NP_987102.1
Reactivity	**Human, Mouse, Rat, Dog, Bovine**
Host	**Goat**
Clonality	**Polyclonal**
Calculated MW	**25206**

Goat anti-GRB2, biotinylated Antibody - Additional Information

Gene ID 2885

Other Names
GRB2; growth factor receptor-bound protein 2; ASH; EGFRBP-GRB2; Grb3-3; MST084; MSTP084; NCKAP2; HT027; SH2/SH3 adapter GRB2; abundant SRC homology; epidermal growth factor receptor-binding protein GRB2; growth factor receptor-bound protein 3; protein Ash

Dilution
WB~~1:1000
Pep-ELISA~~N/A

Format
Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.

Immunogen
This antibody is expected to recognize both reported isoforms (NP_002077.1and NP_987102.1).

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat anti-GRB2, biotinylated Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat anti-GRB2, biotinylated Antibody - Protein Information

Name GRB2

Synonyms ASH

Function
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 (PubMed:11726515, PubMed:37626338). Thus, participates in many biological processes including regulation of innate and adaptive immunity, autophagy, DNA repair or necroptosis (PubMed:35831301, PubMed:37626338, PubMed:38182563). Controls signaling complexes at the T-cell antigen receptor to facilitate the activation, differentiation, and function of T-cells (PubMed:36864087, PubMed:9489702). Mechanistically, engagement of the TCR leads to phosphorylation of the adapter protein LAT, which serves as docking site for GRB2 (PubMed:9489702). 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 (PubMed:12171928, PubMed:25870599). 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) (PubMed:25413232, PubMed:29523808). 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 (PubMed:35831301, PubMed:38182563). Regulates miRNA biogenesis by forming a functional ternary complex with AGO2 and DICER1 (PubMed:37328606). 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 (PubMed:38459011). Additionally, directly recruits and later releases MRE11 at DNA damage sites during the homology-directed repair (HDR) process (PubMed:34348893).

Cellular Location
Nucleus. Cytoplasm. Endosome. Golgi apparatus {ECO:0000250|UniProtKB:Q60631}

Goat anti-GRB2, biotinylated Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat anti-GRB2, biotinylated Antibody - Images