

**Goat anti-GRB2, biotinylated Antibody**  
Peptide-affinity purified goat antibody  
Catalog # AF4351a

## Specification

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### Goat anti-GRB2, biotinylated Antibody - Product Information

Application	WB, Pep-ELISA
Primary Accession	<a href="#">P62993</a>
Other Accession	<a href="#">NP_002077.1</a> , <a href="#">NP_987102.1</a>
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

#### 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\_002077.1 and 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:<a href="http://www.uniprot.org/citations/11726515" target="\_blank">11726515</a>, PubMed:<a href="http://www.uniprot.org/citations/37626338" target="\_blank">37626338</a>). Thus, participates in many biological processes including regulation of innate and adaptive immunity, autophagy, DNA repair or necroptosis (PubMed:<a href="http://www.uniprot.org/citations/35831301" target="\_blank">35831301</a>, PubMed:<a href="http://www.uniprot.org/citations/37626338" target="\_blank">37626338</a>, PubMed:<a href="http://www.uniprot.org/citations/38182563" target="\_blank">38182563</a>). Controls signaling complexes at the T-cell antigen receptor to facilitate the activation, differentiation, and function of T-cells (PubMed:<a href="http://www.uniprot.org/citations/36864087" target="\_blank">36864087</a>, PubMed:<a href="http://www.uniprot.org/citations/9489702" target="\_blank">9489702</a>). Mechanistically, engagement of the TCR leads to phosphorylation of the adapter protein LAT, which serves as docking site for GRB2 (PubMed:<a href="http://www.uniprot.org/citations/9489702" target="\_blank">9489702</a>). In turn, GRB2 establishes 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:<a href="http://www.uniprot.org/citations/12171928" target="\_blank">12171928</a>, PubMed:<a href="http://www.uniprot.org/citations/25870599" target="\_blank">25870599</a>). 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:<a href="http://www.uniprot.org/citations/25413232" target="\_blank">25413232</a>, PubMed:<a href="http://www.uniprot.org/citations/29523808" target="\_blank">29523808</a>). 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:<a href="http://www.uniprot.org/citations/35831301" target="\_blank">35831301</a>, PubMed:<a href="http://www.uniprot.org/citations/38182563" target="\_blank">38182563</a>). Regulates miRNA biogenesis by forming a functional ternary complex with AGO2 and DICER1 (PubMed:<a href="http://www.uniprot.org/citations/37328606" target="\_blank">37328606</a>). 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:<a href="http://www.uniprot.org/citations/38459011" target="\_blank">38459011</a>). Additionally, directly recruits and later releases MRE11 at DNA damage sites during the homology-directed repair (HDR) process (PubMed:<a href="http://www.uniprot.org/citations/34348893" target="\_blank">34348893</a>).

#### 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 Cytometry](#)
- [Cell Culture](#)

#### Goat anti-GRB2, biotinylated Antibody - Images