

Mouse anti-Human GRAP2 Monoclonal Antibody | anti-GRAP2 antibody

Anti-GRAP2 PE

CATALOG # AAA129153	HOST Mouse	REACTIVITY Human	APPLICATIONS Flow Cytometry, Functional Assay
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PRODUCT SYNONYMS

GRAP2; Monoclonal Antibody; Anti-GRAP2 PE; GADS; GRID; GRAP-2; GrbX; GRB2 related adaptor protein 2; anti-GRAP2 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG2a
Clone Number	UW40
Specificity	The mouse monoclonal antibody UW40 recognizes GRAP2/GADS, a 41kDa cytoplasmic adaptor protein that plays a pivotal role during the early events of signal transduction in T cells.
Purity/Purification	The purified antibody is conjugated with R-phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography.
Form/Format	Stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide
Concentration	0.1mg/ml (varies by lot)
Applicable Applications for anti-GRAP2 antibody	FCM/FACS (Flow Cytometry)
Conjugation	PE
Immunogen	GST-fusion human GRAP2/GADS protein
Preparation and Storage	Store in the dark at 2-8 degree C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.

ADDITIONAL INFORMATION

Related Product Information for anti-GRAP2 antibody	GRAP2/GADS (Grb2-related adaptor protein 2/Grb2-related adaptor downstream of Shc) is a cytoplasmic adaptor protein containing N- and C-terminal SH3 domains flanking a central SH2 domain and a proline/glutamine-rich region. It is expressed predominantly in lymphoid tissue and hematopoietic cells, particularly in T cells. GRAP2/GADS plays a pivotal role during the early events of T cell signal transduction by recruiting the adaptor protein SLP-76 and its associated molecules, such as Vav, Nck, Itk, and ADAP, to the transmembrane adaptor protein LAT. GRAP2/GADS also binds several other signaling proteins, namely Gab2, HPK1 (hematopoietic progenitor kinase 1), and Cbl. Unlike similar adaptor protein Grb2, GRAP2/GADS shows higher selectivity when binding to the particular phosphorylated tyrosines of LAT adaptor.
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References	*Yankee TM, Yun TJ, Draves KE, Ganesh K, Bevan MJ, Murali-Krishna K, Clark EA: The Gads (GrpL) adaptor protein regulates T cell homeostasis. J Immunol. 2004 Aug 1;173(3):1711-20., URL: http://www.ncbi.nlm.nih.gov/pubmed/15265900,*Sikorski K, Mehta A, Inngjerdigen M, Thakor F, Kling S, Kalina T, Nyman TA, Stensland ME, Zhou W, de Souza GA, Holden L, Stuchly J, Templin M, Lund-Johansen F: A high-throughput pipeline for validation of antibodies. Nat Methods. 2018 Nov;15(11):909-912., URL: https://www.ncbi.nlm.nih.gov/pubmed/30377371,*Yankee TM, Draves KE, Ewings MK, Clark EA, Graves JD: CD95/Fas induces cleavage of the GrpL/Gads adaptor and desensitization of antigen receptor signaling. Proc Natl Acad Sci U S A. 2001 Jun 5;98(12):6789-93., URL: http://www.ncbi.nlm.nih.gov/pubmed/11391000 *Watanabe R, Harada Y, Takeda K, Takahashi J, Ohnuki K, Ogawa S, Ohgai D, Kaibara N, Koiwai O, Tanabe K, Toma H, Sugamura K, Abe R: Grb2 and Gads exhibit different interactions with CD28 and play distinct roles in CD28-mediated costimulation. J Immunol. 2006 Jul 15;177(2):1085-91., URL: https://www.ncbi.nlm.nih.gov/pubmed/16818765,*Moran O, Roessle MW, Mariuzza RA, Dimasi N: Structural features of the full-length adaptor protein GADS in solution determined using small-angle X-ray scattering. Biophys J. 2008 Mar 1;94(5):1766-72., URL: https://www.ncbi.nlm.nih.gov/pubmed/17993503,*Dalheimer SL, Zeng L, Draves KE, Hassaballa A, Jiwa NN, Parrish TD, Clark EA, Yankee TM: Gads-deficient thymocytes are blocked at the transitional single positive CD4+ stage. Eur J Immunol. 2009 May;39(5):1395-404., URL: https://www.ncbi.nlm.nih.gov/pubmed/19337995,*Cho S, Velikovsky CA, Swaminathan CP, Houtman JC, Samelson LE, Mariuzza RA: Structural basis for differential recognition of tyrosine-phosphorylated sites in the linker for activation of T cells (LAT) by the adaptor Gads. EMBO J. 2004 Apr 7;23(7):1441-51, URL: https://www.ncbi.nlm.nih.gov/pubmed/15029250
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4758476
NCBI GeneID	9402
NCBI Accession #	NP_004801.1
NCBI GenBank Nucleotide #	NM_004810.2
UniProt Accession #	O75791; O43726; Q9NRB7
Molecular Weight	37,909 Da
NCBI Official Full Name	GRB2-related adapter protein 2
NCBI Official Synonym Full Names	GRB2-related adaptor protein 2
NCBI Official Symbol	GRAP2
NCBI Official Synonym Symbols	P38; GADS; GRID; GRPL; GrbX; Mona; GRB2L; GRBLG; Grf40; GRAP-2
NCBI Protein Information	GRB2-related adapter protein 2; grf-40; GRB-2-like protein; adapter protein GRID; grf40 adapter protein; SH3-SH2-SH3 adapter Mona; SH3-SH2-SH3 adaptor molecule; growth factor receptor-binding protein; GRB2-related protein with insert domain; hematopoietic
UniProt Protein Name	GRB2-related adapter protein 2
UniProt Gene Name	GRAP2
UniProt Synonym Gene Names	GADS; GRB2L; GRID; GRB2L; Grf-40
UniProt Entry Name	GRAP2_HUMAN

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