

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

Anti-GRAP2 APC

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| CATALOG #<br><b>AAA129130</b> | HOST<br><b>Mouse</b> | REACTIVITY<br><b>Human</b> | APPLICATIONS<br><b>Flow Cytometry, Functional Assay</b> |
|-------------------------------|----------------------|----------------------------|---------------------------------------------------------|

### PRODUCT SYNONYMS

GRAP2; Monoclonal Antibody; Anti-GRAP2 APC; 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 allophycocyanin (APC) 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                                     | APC                                                                                                                                                                                |
| 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

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| Related Product Information for anti-GRAP2 antibody | <p>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.</p> |
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| References | <p>*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: <a href="http://www.ncbi.nlm.nih.gov/pubmed/15265900">http://www.ncbi.nlm.nih.gov/pubmed/15265900</a>,*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: <a href="https://www.ncbi.nlm.nih.gov/pubmed/30377371">https://www.ncbi.nlm.nih.gov/pubmed/30377371</a>,*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: <a href="http://www.ncbi.nlm.nih.gov/pubmed/11391000">http://www.ncbi.nlm.nih.gov/pubmed/11391000</a></p> <p>*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: <a href="https://www.ncbi.nlm.nih.gov/pubmed/16818765">https://www.ncbi.nlm.nih.gov/pubmed/16818765</a>,*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: <a href="https://www.ncbi.nlm.nih.gov/pubmed/17993503">https://www.ncbi.nlm.nih.gov/pubmed/17993503</a>,*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: <a href="https://www.ncbi.nlm.nih.gov/pubmed/19337995">https://www.ncbi.nlm.nih.gov/pubmed/19337995</a>,*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: <a href="https://www.ncbi.nlm.nih.gov/pubmed/15029250">https://www.ncbi.nlm.nih.gov/pubmed/15029250</a></p> |
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NCBI AND UNIPROT INFORMATION

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| 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                                                                                                                                                                                                                                                     |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.