

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human GRB2 (SH2 Domain) in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) GRAP2 (SH2 domain; aa 58-149), rhGRB7 (aa 130-274), or rhGRB14 (SH2 domain; aa 439-535) is observed.                                                    |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2B</sub> Clone # 669604                                                                                                                                                                                                                           |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human GRB2 (SH2 Domain)<br>Trp60-Glu152<br>Accession # P62993                                                                                                                                                                           |
| <b>Conjugate</b>          | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm                                                                                                                                                                                         |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

GRB2 (growth factor receptor-bound 2; also Ash) is a ubiquitously-expressed, 27 kDa member of the GRB2/sem-5 family of adaptor molecules. It serves as a linker for many intracellular proteins. Upon BCR ligation, LAB is phosphorylated, binds to GRB2, which subsequently recruits signaling factors. Upon InsR ligation, GRB2 binds to phosphorylated IRS-1, and serves as a linker to ras-activation. Human GRB2 is 217 amino acids (aa) in length. It contains one N-terminal SH3 domain (aa 3-54), a central SH2 domain (aa 60-152), and a C-terminal SH3 domain (aa 160-212). SH2 domains bind phosphotyrosine motifs; SH3 domains bind proline-rich regions. There is one splice form that shows a deletion of aa 60-100. This removes the SH2 domain and initiates apoptosis. Human GRB2 is over 99% aa identical to mouse and dog GRB2.

## PRODUCT SPECIFIC NOTICES

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