

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human LILRA4/CD85g/ILT7 in ELISA. No cross-reactivity with human LILRA1, LILRA2, LILRA3, LILRA5, LILRA6, LILRB2 and LILRB3 with ELISA was observed.                                                                                                                 |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2A</sub> Clone # 656656                                                                                                                                                                                                                           |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | Mouse myeloma cell line, NS0derived human LILRA4/CD85g/ILT7<br>Glu24-Asn446<br>Accession # P59901                                                                                                                                                                           |
| <b>Conjugate</b>          | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 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.

**Neutralization** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

#### BACKGROUND

LILRA4, also known as ILT7 and CD85g, is an approximately 60-70 kDa variably glycosylated transmembrane protein that regulates immune cell activation (1). Mature human LILRA4 consists of a 423 amino acid (aa) extracellular domain (ECD) with four immunoglobulin-like domains, a 21 aa transmembrane segment, and a 32 aa cytoplasmic domain (2). Alternative splicing generates an additional isoform that lacks the signal peptide and a portion of the first Ig-like domain. LILRA4 is expressed on plasmacytoid dendritic cells (pDC) but is down-regulated in response to TLR9 signaling (3-5). Antibody mediated crosslinking of LILRA4 on pDC inhibits the production of type I interferons following TLR7 or TLR9 stimulation (3, 4, 6). It also blocks the up-regulation of CCR7 but enhances the up-regulation of Integrin β7 on TLR7/9-stimulated pDC (6). LILRA4 associates with the ITAM-containing adaptor protein Fcε R1γ (3, 4, 6), and this complex binds to cell surface BST2/Tetherin which is expressed on monocytes, plasmacytoid and myeloid dendritic cells, B cells, and activated CD4<sup>+</sup> and CD8<sup>+</sup> T cells (5, 8). This interaction inhibits the TLR-induced pDC production of type I interferons, IL-6, and TNF-α (8).

#### PRODUCT SPECIFIC NOTICES

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