

Human ILT1 Antibody Isotype Control

Purified No Carrier Protein

Recombinant Isotype Control

Product Information

Product No.: I-1241

Clone: 135.5 (LALAPG)

Isotype: Mouse IgG2a

Storage: Sterile 2-8°C

Product Description

Specificity:

135.5 (LALAPG) activity is directed against human LILRA2.

Antigen Distribution:

LILRA2 is expressed on monocytes, macrophages, T cells, natural killer cells, dendritic cells, eosinophils, basophils, neutrophils, granulocytes, and mast cell progenitors.

Background:

LILRA2 (ILT1) is an activating cell surface glycoprotein¹ that is a member of the leukocyte immunoglobulin-like receptor (LILRA) family and forms part of the innate immune response against microbial infection^{2,3}. LILRA proteins are divided into two different classes, with ILT1 designated as a Class I protein that interacts with classical and non-classical human leukocyte antigen class I molecules². ILT1 is associated with autoimmune and autoinflammatory diseases, including rheumatoid arthritis, systemic lupus erythematosus, and microscopic polyangiitis, as well as Hansen's disease (leprosy), where it is upregulated in the lesions. FcεR1γ is required for efficient cell surface expression¹.

Anti-human LILRA2 clone 135.5 is an Fc mutated (LALAPG) recombinant monoclonal antibody specific for human ILT1, a receptor not encoded in mice⁴. It has been used as a control for [anti-TREM2 clone 178](#) in murine studies of TREM2 expression and function in tumor growth. The LALAPG mutation prevents recognition by Fc receptors and complement, thereby minimizing antibody-dependent cellular cytotoxicity and antibody-dependent phagocytosis.

The original IgG2a 135 monoclonal antibody was generated by immunizing Wistar rats with ILT1/FLAG-transfected rat basophilic leukemia cells¹. The LALAPG mutated version was generated by mutating the Fc domain⁴.

Known Reactivity Species:

Human

Format:

Purified No Carrier Protein

Immunogen:

ILT1

Formulation

This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

Purity

≥95% by SDS Page, ≥95% monomer by analytical SEC

Endotoxin

<0.5 EU/mg as determined by the LAL method

Product Datasheet

www.leinco.com

Storage and Stability

Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at -80°C. **Avoid Repeated Freeze Thaw Cycles.**

Product Preparation

Functional grade preclinical antibodies are manufactured in an animal free facility using *in vitro* cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

Other Applications Reported in Literature:

FA,
B,
FC,
IP

Country of Origin

USA

References

1. Nakajima H, Samaridis J, Angman L, et al. J Immunol. 162(1):5-8. 1999.
2. Storm L, Bruijnesteijn J, de Groot NG, et al. Front Immunol. 12:716289. 2021.
3. <https://www.uniprot.org/uniprotkb/Q8N149/entry>
4. Molgora M, Esaulova E, Vermi W, et al. Cell. 182(4):886-900.e17. 2020.