Recombinant Protein Technical Manual

Recombinant Mouse LAIR1 Protein (aa 2241, His Tag)

RPES2065

Product Data:

Product SKU: RPES2065

Size: 10µg

Species: Mouse

Expression host: Human Cells

Uniprot: Q8BG84

Protein Information:

Molecular Mass: 14.4 kDa

AP Molecular Mass: 15-29 kDa

Tag: C-6His

Bio-activity:

Purity: > 90 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Leukocyte-associated immunoglobulin-like receptor 1; LAIR; mLAIR; CD305; Lair1

Immunogen Information:

Sequence: Gln22-Tyr141

Background:

Leukocyte-associated Ig-like receptor (LAIR) is an inhibitory receptor of the Ig superfamily that is structurally related to inhibitory members of KIR and ILT/CD85 families. It is expressed on immune cells, including NK cells, T cells, B cells, monocytes, immature neutrophils, dendritic cells and most thymocytes. The 253 amino acid (aa) type I transmembrane (TM) protein contains a 21 aa signal sequence, a 124 aa extracellular domain (ECD), a 20 aa TM domain and a 98 aa cytoplasmic domain. The ECD includes one C2-type Ig-like domain and two potential N-linked glycosylation sites. Tyrosine phosphorylation of two cytoplasmic ITIM motifs results in recruitment of phosphatases and down-regulation of signaling through activating receptors. LAIR1 shows high-affinity binding of collagens that results in inhibition of degranulation in a basophilic leukemia cell line.