

AITRL, Mouse

Cat. No.: Z03098-10

Size: 10.0 ug

Synonyms: Activation-induced TNFR member Ligand, TNFSF18, GITRL, TL-6

Description:

Activation-Inducible TNF-Related Ligand (AITRL), also known as Glucocorticoid-Induced TNF-Related Ligand (GITRL), belongs to the tumor necrosis factor superfamily (TNFSF). AITRL is a Type II single transmembrane protein and shares low conservation within the extracellular domain with other TNFSF members. AITRL is expressed on macrophages, immature and mature dendritic cells and B cells. Its receptor, Activation-Inducible TNFR family Receptor (AITR), is expressed on T lymphocytes, natural killer (NK) cells, and antigen-presenting cells. After binding by AITRL, AITR can be released. AITR activation increases resistance to tumors and viral infections and is involved in autoimmune and inflammatory processes. In addition, activated AITR increases TCR-induced T cell proliferation and cytokine production and rescues T cells and NK cells from apoptosis.

Recombinant mouse Activation-Inducible TNF-Related Ligand (rmAITRL) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 127 amino acids. A fully biologically active molecule, rmAITRL has a molecular mass of 14.5 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 TAIESCMVKF ELSSSKWHMT SPKPHCVNTT SDGKCLKILQS
00041 GTYLIYGQVI PVDKKYIKDN APFVVQIYKK NDVLQTLMND
00081 FQILPIGGVY ELHAGDNIYL KFNSKDHIQK TNTYWGIIIM
00121 PDLPFIS
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Source: *E. coli*

Species: Mouse

Biological Activity: ED₅₀ < 5 ng/mL, measured by the amount of Interleukin-8 produced by PMBC, corresponding to a specific activity of > 2.0 × 10⁵ units/mg.

Molecular Weight: 14.5 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O at 100 µg/mL.

Purity: > 95% by SDS-PAGE and HPLC analyses.

Endotoxin Level: < 0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant mouse Activation-Inducible TNF-Related Ligand (rmAITRL) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rmAITRL remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.