

## AITRL, Human

**Cat. No.:** Z03097-10

**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. Upon 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 human Activation-Inducible TNF-Related Ligand (rhAITRL) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 126 amino acids. A fully biologically active molecule, rhAITRL has a molecular mass of 14.3 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Amino Acid Sequence:

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00001 METAKEPCMA KFGPLPSKWQ MASSEPPCVN KVSQWKLEIL
00041 QNGLYLIYGG VAPNANYNDV APFEVRLYKN KDMIQTLTNK
00081 SKIQNVGGTY ELHVGDITDL IFNSEHQVLK NNTYWGIIIL
00121 ANPQFI
```

**Source:** *E. coli*

**Species:** Human

**Biological Activity:** ED<sub>50</sub> < 5 ng/mL, measured by the amount of Interleukin-8 produced by PMBC, corresponding to a specific activity of > 2.0 × 10<sup>5</sup> units/mg.

**Molecular Weight:** 14.3 kDa, observed by reducing SDS-PAGE.

**Formulation:** Lyophilized after extensive dialysis against 50 mM Tris, pH8.0.

**Reconstitution:** Reconstituted in ddH<sub>2</sub>O at 100 µg/mL.

**Purity:** > 95% by SDS-PAGE analysis.

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

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