



Overview

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 <i>E. coli</i> 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.
Accession No	Q7TS55
Species	Mouse
Source	E. coli
Biological Activity	$ED_{50} < 5$ ng/mL, measured by the amount of Interleukin-8 produced by PMBC, corresponding to a specific activity of > 2.0 × 10 ⁵ units/mg.
Sequence	TAIESCMVKF ELSSSKWHMT SPKPHCVNTT SDGKLKILQS GTYLIYGQVI PVDKKYIKDN APFVVQIYKK NDVLQTLMND FQILPIGGVY ELHAGDNIYL KFNSKDHIQK TNTYWGIILM PDLPFIS

Properties

Measured Molecula Weight	^r 14.5 kDa, observed by reducing SDS-PAGE.
Purity	> 95% by SDS-PAGE and HPLC analyses.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH₂O at 100 µg/mL.
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.
Note	For research use only

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