Data Sheet (Cat.No.TMPY-02597)

TargetMol

IL-37 Protein, Human, Recombinant

General Information

Synonyms:	FIL1Z;IL-37;IL37;IL1F7;IL-1RP1;FIL1(ζ);IL1RP1;FIL1;IL-1H;interleukin 37;IL-1H4;IL-1F7;IL1H4;FIL1(ZETA)
Protein Construction:	A DNA sequence encoding the mature form of human IL1F7 isoform A (Q9NZH6-2) (Lys 27-Asp 192) was expressed and purified, with an initial Met. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	Q9NZH6-2
Molecular Weight:	18.7 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 96 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Interleukin 1 family member 7, or interleukin 37 (IL1F7 / IL37 / IL-1H4) is a secretory protein belonging to the Interleukin 1 family. IL-1F7 was localized in human peripheral monocytic cells. It has been localized the expression of IL-1F7b protein in discrete cell populations including plasma cells and tumor cells. These data suggest that IL-1F7 may be involved in immune response, inflammatory diseases, and/or cancer. Through constructing an

adenoviral vector that allows high-level expression in murine and human cells, it has been demonstrated that the ability of adenovirus-mediated gene transfer of IL1F7 to induce an IL-12- and Fas ligand-dependent anti-tumor response. Complete inhibition of tumor growth was observed following multiple injections of IL1F7 in most animals. These results suggest that IL1F7 could play a role in both innate and adaptive immune responses, similar to IL-18. Moreover, IL1F7 could be useful for cancer gene therapy.

Reference

Gao W, et al. (2003) Innate immunity mediated by the cytokine IL-1 homologue 4 (IL-1H4/IL-1F7) induces IL-12-dependent adaptive and profound antitumor immunity. J Immunol. 170 (1): 107-13.

Bufler P, et al. (2002) A complex of the IL-1 homologue IL-1F7b and IL-18-binding protein reduces IL-18 activity. Proc Natl Acad Sci. 99 (21): 13723-8.

Kumar S, et al. (2002) Interleukin-1F7B (IL-1H4 / IL-1F7) is processed by caspase-1 and mature IL-1F7B binds to the IL-18 receptor but does not induce IFN-gamma production. Cytokine. 18 (2): 61-71.

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