Data Sheet (Cat.No.TMPY-01956)

TargetMol

IL-36 alpha/IL-1F6 Protein, Mouse, Recombinant

General Information

Synonyms:	IL1(ε);FIL1(ε);IL36 α/IL-1F6;IL1F6;IL1(EPSILON);FIL1;interleukin 36, alpha;FIL1E;interleukin 36, α;FIL1(EPSILON);IL-1F6
Protein Construction:	A DNA sequence encoding the mouse IL1F6 (Q9JLA2-1) (Met 1-His 160) was expressed and purified. Predicted N terminal: Met 1
Species:	Mouse
Expression Host:	E. coli
Accession:	Q9JLA2-1
Molecular Weight:	18 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:	> 97 % 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 6 (IL-1F6), also known as interleukin 36, alpha (IL36A), is a pro-inflammatory cytokine that plays an important role in innate and adaptive immunity. IL-1F6 activates MAPK and NF-kB pathways and is produced by many different cells. This cytokine is a family member of interleukin-1 (IL-1) and plays an important role in the pathophysiology of several diseases. It has been reported that IL-1F6 and IL-1F8, in addition to IL-1F9,

activate the pathway leading to NF-kappaB in an IL-1Rrp2-dependent manner in Jurkat cells as well as in multiple other human and mouse cell lines. Activation of the pathway leading to NF-kappaB by IL-1F6 and IL-1F8 follows a similar time course to activation by IL-1beta, suggesting that signaling by the novel family members occurs through a direct mechanism. In a mammary epithelial cell line, NCI/ADR-RES, which naturally expresses IL-1Rrp2, all three cytokines signal without further receptor transfection. IL-1Rrp2 antibodies block activation of the pathway leading to NF-kappaB by IL-1F6, IL-1F8, and IL-1F9 in both Jurkat and NCI/ADR-RES cells. Thus IL-1F6, IL-1F8, and IL-1F9 signal through IL-1Rrp2 and IL-1RAcP.

Reference

Tripodi D,et al. (2012) IL-36 a new member of the IL-1 family cytokines. J Biol Regul Homeost Agents. 26(1):7-14.
Towne JE,et al. (2004) Interleukin (IL)-1F6, IL-1F8, and IL-1F9 signal through IL-1Rrp2 and IL-1RAcP to activate the pathway leading to NF-kappaB and MAPKs. J Biol Chem. 279(14): 13677-88.
Kumar S,et al. (2000) Identification and initial characterization of four novel members of the interleukin-1 family. J Biol Chem. 275(14): 10308-14.