Data Sheet (Cat.No.TMPY-00338)

IL-17RD Protein, Canine, Recombinant (hFc)

General Information

Synonyms:	interleukin 17 receptor D
Protein Construction:	A DNA sequence encoding the canine IL17RD (XP_541835.3) (Ala27-Arg299) was expressed with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Ala 27
Species:	Canine
Expression Host:	HEK293 Cells
Accession:	XP_541835.3
Molecular Weight:	58.2 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:	> 90 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
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:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

Interleukin-17 receptor D (IL-17D) also known as Interleukin-17 receptor-like protein, is a member of the interleukine-17 receptor family. IL-17RD functions as a feedback inhibitor of fibroblast growth factor-mediated Ras-MAPK signaling and ERK activation. It may inhibit FGF-induced FGFR1 tyrosine phosphorylation, regulate the nuclear ERK signaling pathway by spatially blocking nuclear translocation of activated ERK By similarity, and mediate JNK activation and may be involved in apoptosis. IL-17RD is found expressed in the neopallial cortex,

rhombic lip, and dorsal regions of the myelencephalon and the frontal nasal process. IL-17RD is also expressed in the commissural plate and septal area of the forebrain and the hippocampus, lens, and optic cup. In the oral region, IL-17RD is expressed in the tongue and the mesenchyme of the first branchial arch. It is also expressed in the developing inner ear. IL-17RD interacts with both IL-17R-Myc and IL-17RB-Myc. Both the intracellular and extracellular domains of IL-17RD interact with IL-17R. IL-17R forms a heteromeric complex with IL-17RD. Experiment results indicate that IL-17RD can affect IL-17R localization, suggesting that these two molecules are colocalized and associate with each other within cells. The fact that IL-17RD Delta ICD is unable to mediate IL-17 signaling but functions as a dominant-negative form indicates that the intracellular domain of IL-17RD is pivotal. Also, IL-17RD interacts with the IL-17R downstream molecule TRAF6. It has been proposed that the IL-17RD intracellular domain interacts with IL-17R and TRAF6 to deliver the downstream signal.

Reference

Weaver CT,et al.. (2007) IL-17 family cytokines and the expanding diversity of effector T cell lineages. Annu Rev Immunol. 25: 821-52.

Rong Z,et al.. (2009) IL-17RD (Sef or IL-17RLM) interacts with IL-17 receptor and mediates IL-17 signaling. Cell Res. 19(2): 208-15.

Gaffen SL. (2009) Structure and signalling in the IL-17 receptor family. Nat Rev Immunol. 9(8): 556-67.