Data Sheet (Cat.No.TMPY-05438)

TargetMol

CAN F 4 Protein, Canine, Recombinant (His)

General Information

Protein Construction:	A DNA sequence encoding the canine Canf4 (NP_001177855.1) (Met1-Glu174) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Gln 17
Species:	Canine
Expression Host:	HEK293 Cells
Accession:	D7PBH4
Molecular Weight:	19.1 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 50 mM Tris, 100 mM NaCl, 0.02% TWeen 80, pH 8.0.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.

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

Dog dander is an important cause of respiratory allergy but its content of allergenic components is still incompletely known. The size and the amino acid composition of the ligand-binding pocket indicate that Can f 4 is capable of binding only relatively small hydrophobic molecules which are different from those that Can f 2 is able to bind. The crystal structure of Can f 4 contained both monomeric and dimeric forms of the allergen, suggesting that Can f 4 is able to form transient (weak) dimers. The existence of transient dimers in solution was confirmed by use of native mass spectrometry. The dimeric structure of Can f 4 is formed when the ends of four β-strands are

packed against the same strands from the second monomer.

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