

IL-22RA1 Protein, Canine, Recombinant (hFc)

General Information

Synonyms:	interleukin 22 receptor, α 1; interleukin 22 receptor, alpha 1
Protein Construction:	A DNA sequence encoding the canine IL22RA1 (XP_855113.2) (Met1-Thr226) was expressed with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Ala 15
Species:	Canine
Expression Host:	HEK293 Cells
Accession:	A0A8C0M3C4
Molecular Weight:	51.2 kDa (predicted); 56 kDa (reducing conditions)

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:	> 85 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/ μ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μ m 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.

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

IL-22R belongs to the type II cytokine receptor family. It contains 2 fibronectin type-III domains and is expressed in the colon, liver, lung, pancreas, and kidney. IL-22R also can be expressed in keratinocytes of normal skin as well as in psoriatic skin lesions. Overexpression of IL-22R can be detected in synovial fluid cells from rheumatoid arthritis and spondyloarthritis patients. IL-22R is a component of the receptor for IL20, IL22, and IL24. The component of IL-22R formed by IL22RA1 and IL10RB enables IL22 signaling via JAK/STAT pathways. IL22 also

induces activation of MAPK1/MAPK3 and Akt kinases pathways. Component of one of the receptors for IL20 and IL24 formed by IL22RA1 and IL20RB also signaling through STATs activation. IL-22R mediates IL24 antiangiogenic activity as well as IL24 inhibitory effect on endothelial cell tube formation and differentiation.

Reference

- Xie MH, et al. (2000) Interleukin (IL)-22, a novel human cytokine that signals through the interferon receptor-related proteins CRF2-4 and IL-22R. *J Biol Chem.* 275(40):31335-9.
- Xu W, et al. (2001) A soluble class II cytokine receptor, IL-22RA2, is a naturally occurring IL-22 antagonist. *Proc Natl Acad Sci.* 98(17):9511-6.
- Wu PW, et al. (2008) IL-22R, IL-10R2, and IL-22BP binding sites are topologically juxtaposed on adjacent and overlapping surfaces of IL-22. *J Mol Biol.* 382(5):1168-83.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481