



Recombinant Canine IL-15

Catalog Number: GR104107

Background

Interleukin 15 (IL-15) is a cytokine with structural similarity to IL-2. Like IL-2, IL-15 binds to and signals through the IL-2/IL-15 beta chain (CD122) and the common gamma chain (gamma-C, CD132) (1, 2, 3). IL-15 is secreted by mononuclear phagocytes (and some other cells) following infection by virus. Interleukin 15 (IL-15) regulates T and natural killer (NK) cell activation and proliferation. Survival signals that maintain memory T cells in the absence of antigen are provided by IL-15. This cytokine is also implicated in NK cell development. IL-15 receptor, which binds IL-15 propagates its function. Some subunits of the IL-15 receptor are shared in common with the receptor for a structurally related cytokine called interleukin 2 (IL-2) allowing both cytokines to compete for and negatively regulate each other's activity (4, 5). CD8+ memory T cell number is controlled by a balance between IL-15 and IL-2. When IL-15 binds its receptor, JAK kinase, STAT3, STAT5, and STAT6 transcription factors are activated to elicit downstream signaling events.

References

1. Grabstein, K. et al. (1994) *Science* 264:965.
2. Budagian, V. et al. (2006) *Cytokine Growth Factor Rev.* 17:259.
3. Ma, A. et al. (2006) *Annu. Rev. Immunol.* 24:657.
4. Giri, J. et al. (1994) *EMBO J.* 13:2822.
5. Duitman, E.H. et al. (2008) *Mol. Cell. Biol.* 28:4851.



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Description

Size: 5 µg

Sources: Expressed in *E. coli*.

Composition: Thr27-Asn160

Accession #: F1PI19

Molecular weight: 14 kDa

Activity:

Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells.

The ED50 for this effect is typically 0.9-3.8 ng/ml.

Endotoxin level: < 1.0 EU per 1 µg of the protein by the LAL method.

Purity: > 97%, by SDS-PAGE under reducing conditions and visualized by silver staining.

Formulation: Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein.

Reconstitution: reconstitute at 50-100 µg/ml in sterile PBS and store at -20°C ~ -70°C for up to 3 months.

Shipping and storage: The product is shipped at ambient temperature or with ice pad. Upon receipt, store it immediately at -20°C to avoid loss of activity and use it in 6 months.

DECLARATION

THIS REAGENT IS FOR IN VITRO LABORATORY TESTING AND RESEARCH USE ONLY. DO NOT USE IT FOR CLINICAL DIAGNOSTICS. DO NOT USE OR INJECT IT IN HUMAN AND ANIMALS.

**FOR LABORATORY RESEARCH USE ONLY
NOT FOR USE IN HUMANS AND ANIMALS**