Recombinant Canine IL-2 (Cys147Ser)
Catalog Number: 1815-CL

DESCRIPTION

Source
E. coli-derived
Ala21-Thr155 (Cys147Ser), with and without an N-terminal Met
Accession # Q29416

N-terminal Sequence Analysis
Met & Ala21

Predicted Molecular Mass
15.6 kDa

SPECIFICATIONS

Activity
The ED₅₀ for this effect is 0.15-0.8 ng/mL.

Endotoxin Level
<0.10 EU per 1 μg of the protein by the LAL method.

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

Formulation
Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution
Reconstitute at 100 μg/mL in sterile PBS containing at least 0.1% human or bovine serum albumin.

Shipping
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage
Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Interleukin 2 was initially identified as a T cell growth factor that is produced by T cells following activation by mitogens or antigens (1). Since then, it has been shown that IL-2 can also stimulate the growth and differentiation of B cells, natural killer (NK) cells, lymphocyte activated killer (LAK) cells, monocytes/macrophages, and oligodendrocytes (2). The biological activity of IL-2 is mediated by the binding to cell surface receptor complexes composed of three subunits designated as α, β, and γ subunits (3). IL-2 binds the α subunit with low affinity. The functional high affinity IL-2 receptor is a heterotrimeric complex of the α, β, and γ subunits. IL-2 binds with intermediate affinity to the complex containing the β and γ subunits, which is also capable of transducing IL-2 signals (4). In T cells, the β and γ subunits are shared with the IL-15 receptor complex (5). The γ subunit of the IL-2 receptor complex has also been shown to be a subunit of the receptor complexes of IL-4, IL-7, and IL-9 (6). At the amino acid sequence level, canine IL-2 shares 90%, 86%, 85%, 76%, and 75% sequence similarities to feline, human, equine, mouse, and bovine IL-2, respectively (7).

References: