

## Recombinant Murine Interleukin-2 (rMuIL-2)

## **ChemWhat Technical Data Sheet (TDS)**

Catalog Number:

121-02

Source:

Escherichia coli.

Molecular Weight:

Approximately 17.2 kDa, a single non-glycosylated polypeptide chain containing 149 amino acids.

Quantity:

 $5 \mu g / 20 \mu g / 1000 \mu g$ 

AA Sequence:

APTSSSTSSS TAEAQQQQQ QQQQQHLEQ LLMDLQELLS RMENYRNLKL PRMLTFKFYL PKQATELKDL QCLEDELGPL RHVLDLTQSK SFQLEDAENF

ISNIRVTVVK LKGSDNTFEC QFDDESATVV DFLRRWIAFC QSIISTSPQ

**Purity:** 

> 95 % by SDS-PAGE and HPLC analyses.

**Biological Activity:** 

Fully biologically active when compared to standard. The ED<sub>50</sub> as determined by a cell proliferation assay using murine CTLL-2 cells is less than 0.2 ng/ml, corresponding to a specific activity of  $> 5.0 \times$ 

106 IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder. Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4.

Formulation: Endotoxin:

Less than  $1EU/\mu g$  of rMuIL-2 as determined by LAL method.

Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and

stored at  $\leq$  -20  $\mathbb C$ . Further dilutions should be made in appropriate buffered solutions.

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.

Usage:

ChemWhat Limited in UK offers this branded product for research, development or further

evaluation purposes. NOT FOR HUMAN USE.

## Murine Interleukin-2

IL-2 is a powerful immunoregulatory lymphokine produced by T-cells in response to antigenic or mitogenic stimulation. It is expressed by CD4+ and CD8+ T cells,  $\gamma\delta$  T cells, B cells, dendritic cells, and eosinophils. IL-2/IL-2R signaling is required for T-cell proliferation and other fundamental functions which are essential for the immune response. The receptor for IL-2 consists of three subunits (55 k Da IL-2R $\alpha$ , 75 k Da IL-2R $\beta$ , 64 k Da common gamma chain  $\gamma$ c/IL2R $\gamma$ ) that are present on the cell surface in varying preformed complexes. Mature mouse IL-2 shares 56% and 73% amino acid sequence identity with human and rat IL-2 respectively. Mouse and human IL-2 exhibit cross-species activity. Mouse IL-2 has a specific N-terminal region that contains a poly glutamine (contain 12 glutamines) stretch.

Rev. 08/20/2018 V.3

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