Technical Data Sheet

Recombinant Murine Interleukin-2 (rMu IL-2)

Murine Interleukin-2

Mature mouse IL-2 shares 56% and 73% aa sequence identity with human and rat IL-2, respectively. It shows strain-specific heterogeneity in an N-terminal region that contains a poly-glutamine stretch. Mouse and human IL-2 exhibit cross-species activity. The receptor for IL-2 consists of three subunits that are present on the cell surface in varying preformed complexes. The 55 kDa IL-2 R α is specific for IL-2 and binds with low affinity. The 75 kDa IL-2 R β , which is also a component of the IL-15 receptor, binds IL-2 with intermediate affinity. The 64 kDa common gamma chain γ c/IL-2 R γ , which is shared with the receptors for IL-4, -7, -9, -15, and -21, does not independently interact with IL-2. Upon ligand binding, signal transduction is performed by both IL-2 R β and γ c. It drives resting T cells to proliferate and induces IL-2 and IL-2 R α synthesis. It contributes to T cell homeostasis by promoting the Fas-induced death of naïve CD4+ T cells but not activated CD4+ memory lymphocytes. IL-2 plays a central role in the expansion and maintenance of regulatory T cells, although it inhibits the development of Th17 polarized cells.

Catalog Number:	RC232-13
Source:	*Escherichia coli.*
Molecular Weight:	Approximately 17.2 kDa, a single non-glycosylated polypeptide chain containing 149 amino acids.
Quantity:	5ug/20ug/1000μg
Purity:	>95% by SDS-PAGE and HPLC analyses.
Biological Activity:	The ED_{50} as determined by the dose dependent stimulation of murine CTLL-2 cells is < 0.2 ng/ml, corresponding to a specific activity of > 5 x 10^6 units/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2μm filtered solution in PBS, pH 7.4.
AA Sequence:	PTSSSTSSST AEAQQQQQQQ QQQQQHLEQL LMDLQELLSR MENYRNLKLP RMLTFKFYLP KQATELKDLQ CLEDELGPLR HVLDLTQSKS FQLEDAENFI SNIRVTVVKL KGSDNTFECQ FDDESATVVD FLRRWIAFCQ SIISTSPQ
Endotoxin:	Less than 1EU/μg of rmIL-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 ≤-20°C. Further dilutions should be made in appropriate buffered solutions.

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Storage:	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.
Usage:	This material is offered by Bio Basic Inc for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.

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