

Datasheet for ABIN988052

## IL-2 Protein

### 2 Publications



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### Overview

Quantity:	1 mg
Target:	IL-2 (IL2)
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Biological Activity:	Active

### Product Details

Sequence:	APTSSSTSSS TAEAQQQQQ QQQQQQHLEQ LLMDLQELLS RMENYRNLKL PRMLTFKFYL PKQATELKDL QCLEDELGPL RHVLDLTQSK SFQLEDAENF ISNIRVTVVK LKGSNTFEC QFDDESATVV DFLRRWIAFC QSIISTSP
Characteristics:	The ED50 as determined by the dose dependent stimulation of murine CTLL-2 cells is < 0.2 ng/ml, corresponding to a specific activity of > 5.0 x 10 <sup>6</sup> units/mg.
Purity:	> 95 % by SDS-PAGE and HPLC analyses.
Endotoxin Level:	Level Less than 1EU/μg of rMull-2 as determined by LAL method

### Target Details

Target:	IL-2 (IL2)
Alternative Name:	Interleukin-2 (IL-2 ) ( <a href="#">IL2 Products</a> )
Background:	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

## Target Details

consists of three subunits that are present on the cell surface in varying preformed complexes . The 55 kDa IL-2 R $\alpha$  is specific for IL-2 and binds with low affinity. The 75 kDa IL-2 R $\beta$ , which is also a component of the IL-15 receptor, binds IL-2 with intermediate affinity. The 64 kDa common gamma chain $\gamma$ /IL-2 R $\gamma$ , 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 $\beta$  and  $\gamma$ . It drives resting T cells to proliferate and induces IL-2 and IL-2 R $\alpha$  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. Synonym: Interleukin-2 ( IL-2 ), Mouse. Formulation: Lyophilized from a 0.2 $\mu$ m filtered solution in PBS, pH 7.4.

Molecular Weight:	Approximately 17.2 kDa, a single non-glycosylated polypeptide chain containing 149 amino acids.
Pathways:	<a href="#">JAK-STAT Signaling</a> , <a href="#">Regulation of Leukocyte Mediated Immunity</a> , <a href="#">Positive Regulation of Immune Effector Process</a> , <a href="#">Production of Molecular Mediator of Immune Response</a> , <a href="#">Activated T Cell Proliferation</a>

## Application Details

Restrictions:	For Research Use only
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## Handling

Format:	Lyophilized
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
Storage:	4 °C

## Publications

Product cited in:	Phuan, Ratelade, Rossi, Tradtrantip, Verkman: "Complement-dependent cytotoxicity in neuromyelitis optica requires aquaporin-4 protein assembly in orthogonal arrays." in: <b>The Journal of biological chemistry</b> , Vol. 287, Issue 17, pp. 13829-39, (2012) ( <a href="#">PubMed</a> ).
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Brewin, Mancao, Straathof, Karlsson, Samarasinghe, Amrolia, Pule: "Generation of EBV-specific cytotoxic T cells that are resistant to calcineurin inhibitors for the treatment of posttransplantation lymphoproliferative disease." in: **Blood**, Vol. 114, Issue 23, pp. 4792-803, (2009) ([PubMed](#)).