

Datasheet for ABIN2666705 **IL-2 Protein (AA 21-153)**

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Overview

Quantity:	10 µg
Target:	IL-2 (IL2)
Protein Characteristics:	AA 21-153
Origin:	Rat
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Purity:	Purity is > 98 % , as determined by Coomassie stained SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Endotoxin level is <0.1 EU/µg (<0.01ng/µg) protein as determined by the LAL method.

Target Details

Target:	IL-2 (IL2)
Alternative Name:	IL-2 (IL2 Products)
Background:	Interleukin 2 was discovered through its function as a T cell growth factor (TCGF). IL-2 binds to IL-2 receptor which is expressed in T and B cells, thymocytes, and NK cells. The IL-2 receptor comprises three distinct components: the α -chain, which is cytokine specific, and the β - and γ -subunits which are share with the IL-15 receptor. In addition, the γ c-subunit is a component of

Target Details

a series of other cytokine receptors, these being members of the γc cytokine receptor family (IL-4, IL-7, IL-9, and IL-21) (3). IL-2 signaling may play a major role in the differentiation of regulatory T cells (4). IL-2, IL-15, and IL-7 can all support NK cell differentiation, nevertheless, analyses of IL-2(-/-), IL-2R α (-/-) mice fail to exhibit significant defects in NK cell development. This data suggest that IL-2 might have a redundant role in NK cell differentiation (4).

Molecular Weight: The 134 amino acid N-terminal methionylated recombinant protein has a predicted molecular mass of 15,396 Da. The DTT-reduced protein migrates at approximately 14kDa and the non-reduced protein migrates with slightly greater mobility by SDS-PAGE.

Pathways: [JAK-STAT Signaling](#), [Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#), [Production of Molecular Mediator of Immune Response](#), [Activated T Cell Proliferation](#)

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Comment: Biological activity: ED50 = 0.102 - 0.295 ng/ml, corresponding to a specific activity of 9.8 - 3.39 x 10⁶ units/mg, as determined by the dose dependent stimulation of CTLL-2 cells.

Restrictions: For Research Use only

Handling

Format: Liquid

Reconstitution: For maximum results, quick spin vial prior to opening. The protein can be aliquoted and stored from -20 °C to -70 °C. Stock solutions can also be prepared at 50-100 µg/mL in sterile buffer (PBS, HPBS, DPBS, or EBSS) containing carrier protein such as 0.2-1 % BSA or HSA and stored in working aliquots at -20 °C to -70 °C.

Buffer: 0.22 µm filtered protein solution is in 5 mM NaH₂PO₄, 5 mM citric acid, 150 mM NaCl, pH 4.0.

Handling Advice: Avoid repeated freeze/thaw cycles.

Storage: -20 °C

Storage Comment: Unopened vial can be stored between 2°C and 8°C for one month, at -20°C for six months, or at -70°C for one year.