

Recombinant Human Interleukin-24 (rh IL-24 / IL-10B)

Synonyms: Suppression of Tumorigenicity 16 protein (ST16), Melanoma Differentiation-Associated gene 7 protein (MDA-7), C49A, FISP, Mob-5.

Introduction: IL-24 is a member of the IL-10 family of cytokines. It was identified as a gene induced during terminal differentiation in melanoma cells. IL-24 encoded can induce apoptosis selectively in various cancer cells. Overexpression IL-24 leads to elevated expression of several GADD family genes which correlates with the induction of apoptosis. The phosphorylation of mitogen-activated protein kinase 14 (MAPK7/P38) and heat shock 27 kDa protein 1 (HSB2/HSP27) are found to be induced by this gene in melanoma cells, but not in normal immortal melanocytes. Alternatively spliced transcript variants encoding distinct isoforms have been reported. The glycosylation is essential for activity of IL-24. IL-24 has diverse functional activities. At low concentrations it induces type I proinflammatory cytokines such as IFN- γ , IL-1 β , IL-12 and TNF- α . At high concentration it is a strong inducer of apoptosis in tumor cells, but not normal cells. IL-24 is being hailed as a "magic bullet" for cancer gene therapy.

Description: Recombinant human IL-24 produced in yeast is a single, glycosylated, polypeptide chain containing 158 amino acids and having a molecular mass of 18 kDa. As a result of glycosilation, the protein migrates at 19.5 kDa on SDS-Page.

Source: *Sacharomyces cerevisiae*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2 μ m filtered solution in PBS with BSA. The aliquots of 1 μ g and 2 μ g contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rh IL-24 in sterile water not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh IL-24 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rh IL-24 should be stored at 4°C between 2-7days, for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity: Greater than 98.0% as determined by RP-HPLC and by SDS-PAGE.

Biological Activity: Measured by its ability to bind to the cell receptor of Capan-1 cells resulted in STAT3 activation. The ED₅₀ for this effect is typically 1.0 ng/ml.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 μ g	Cat.N°	11340242
<i>medium</i>	10 μ g	Cat.N°	11340243
<i>large</i>	50 μ g	Cat.N°	11340245

ImmunoTools Excellent Quality - Advantageously priced

Gladiolenweg 2; 26169 Friesoythe; Germany
 phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, info@immunotools.com
www.immunotools.com