

Recombinant Human IL-24

CATALOG #:	4975-10	10 µg
	4975-1000	1 mg
LOT #:		
SYNONYMS:	C49A, FISP, MDA7, ST16, IL-24, IL10B, Mob-5, MDA-7, Suppression of tumorigenicity 16 protein, Melanoma differentiation-associated gene 7 protein, Interleukin-24	
SOURCE:	<i>Sacharomyces cerevisiae</i>	
PURITY:	>98% by SDS-PAGE and HPLC analyses Endotoxin level is <0.1 ng/µg of human IL-24.	
MOLECULAR WT:	19.5 kDa (due to glycosylation)	
FORM:	Lyophilized from sterile filtered PBS with BSA as a carrier	

RECONSTITUTION:

Centrifuge the vial prior to opening. Reconstitute in sterile dH₂O not less than 100 µg/ml. This solution can then be diluted into other aqueous buffers and stored at 4°C for 1 week or -20°C for future use.

STORAGE CONDITIONS:

The lyophilized human IL-24 is best-stored desiccated below 0°C. Reconstituted IL-24 should be stored in working aliquots at -20°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

DESCRIPTION:

IL24 is a member of the IL10 family of cytokines. It was identified as a gene induced during terminal differentiation in melanoma cells. IL-10B 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 27kDa protein 1 (HSPB2/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. Functionally, IL-24 has diverse activities. At low concentrations, it induces type I proinflammatory cytokines such as IFN-γ, IL-1β, IL-12 and TNF-α. At high concentration, it is a strong inducer of apoptosis in tumor cells, but not normal cells. *mda-7*/IL-24 is being hailed as a 'magic bullet' for cancer gene therapy. 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 glycosylation, the protein migrates at 19.5 kDa on SDS-PAGE.

BIOLOGICAL ACTIVITY:

Measured by its ability to bind to the cell receptor of Capan-1 cells line resulted in Stat-3 activation. The ED₅₀ for this effect is typically 1.0 ng/mL.

FOR RESEARCH USE ONLY! Not to be used on humans.

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- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents
- Apoptosis Inducers and Set
- Apoptosis siRNA Vectors

Cell Fractionation System

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- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
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- Bioluminescence Cytotoxicity Assay Kit
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