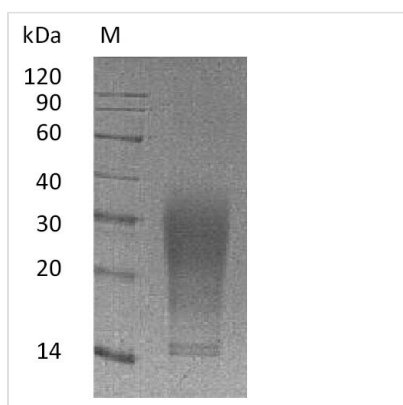




Recombinant Mouse Interleukin-13 (Il13), partial (Active)

Product Code	CSB-AP004751MO
Abbreviation	Recombinant Mouse Il13 protein, partial (Active)
Uniprot No.	P20109
Storage Buffer	Lyophilized from a 0.2 µm filtered 1xPBS, pH 7.4
Product Type	Interleukins
Immunogen Species	Mus musculus (Mouse)
Biological Activity	The ED50 as determined in a cell proliferation assay using TF?1 human erythroleukemic cells is 11.34 ng/ml.
Purity	Greater than 95% as determined by SDS-PAGE.
Sequence	PVPRSVSLPLTLKELIEELSNITQDQTPLCNGSMVWSVDLAAGGFCVALDSLTN ISNCNAIYRTQRILHGLCNRKAPTTVSSLPDTKIEVAHFITKLLSYTKQLFRHGPF
Research Area	Immunology
Source	Mammalian cell
Target Names	Il13
Expression Region	22-131aa
Tag Info	C-terminal 6xHis-tagged
Mol. Weight	13.1 kDa
Protein Length	Partial

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The process of producing recombinant mouse IL13 in mammalian cells involves co-inserting the target gene that encodes the 22-131aa of mouse IL13 into an expression plasmid with a C-terminal 6xHis-tag gene, which is transformed into mammalian cells. These cells are cultured to produce the mouse IL13 protein. The cells are lysed to release the protein, which is purified using affinity



chromatography. The purity of the recombinant mouse IL13 protein is determined using SDS-PAGE, exceeding 95%. Its endotoxin is less than 1.0 EU/μg as determined by the LAL method. The activity of the IL13 protein is measured in a cell proliferation assay using TF?1 human erythroleukemic cells, with the ED50 of 11.34 ng/ml.

IL13 is a pleiotropic cytokine. It can promote alternative activation of microglia and macrophages after stroke [1]. It shows potential for chimeric antigen receptor (CAR) T cell therapy for glioblastoma [2]. It protects the intestine from ischemia and reperfusion injury [3]. IL13 also promotes metaplasia development during chronic gastritis [4] and regulates secretion in airway epithelial cells through autophagy [5]. Furthermore, IL13 has been implicated in cardiac regeneration processes in mice [6]. Research has found that IL13 limits microgliosis, oligodendrocyte loss, and demyelination in a mouse model of demyelinating disease [7]. IL13 is linked to various diseases, such as eosinophilic esophagitis [8], colorectal tumors post-pelvic radiotherapy [9], asthma [10], and polycystic kidney disease [11].

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Endotoxin

Less than 1.0 EU/μg as determined by LAL method.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.