Active Recombinant Rat Il4 protein, His-tagged

Cat. No. Il4-477R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Rat Il4 protein(P20096)(25~147 aa), fused with N-terminal His tag, was expressed in HEK293.
Species	Rat
Source	HEK293
ProteinLength	25-147 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	The interleukin 4 (IL4,) is a cytokine that induces differentiation of naive helper T cells (Th0 cells) to Th2 cells. Upon activation by IL4, Th2 cells subsequently produce additional IL4 in a positive feedback loop. IL4 has many biological roles, including the stimulation of activated B-cell and T-cell proliferation, and the differentiation of B cells into plasma cells. It is a key regulator in humoral and adaptive immunity. IL4 induces B-cell class switching to IgE, and up-regulates MHC class II production. IL4 decreases the production of Th1 cells, macrophages, IFN-gamma, and dendritic cell IL12. The activity of IL4 is usually measured by a cell proliferation assay using TF-1 cells. TF-1 cells were seeded into triplicate wells of 96-well plates at a density of 8,000 cells/well with 2% serum standard 1640 which contains various concentrations of recombinant rat IL4. After incubated for 3 days, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8).

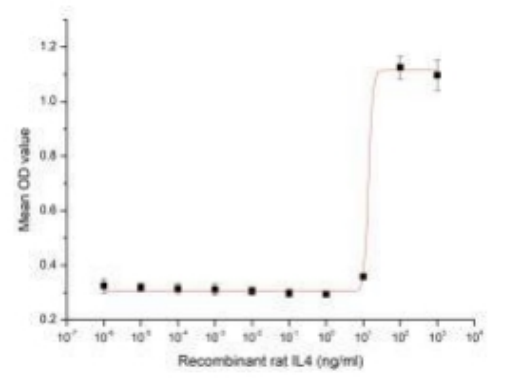
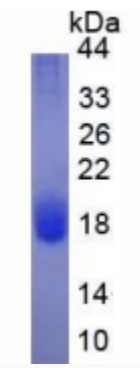
Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	Briefly, 10 µof CCK-8 solution was added to each well of the plate, then the absorbance at 450 nm was measured using a microplate reader after incubating the plate for 2-4 hours at 37°C. Proliferation of TF-1 cells after incubation with IL4 for 3 days observed by inverted microscope was shown. Cell viability was assessed by CCK-8 (Cell Counting Kit-8) assay after incubation with recombinant rat IL4 for 3 days. It was obvious that IL4 significantly increased cell viability of TF-1 cells. The ED50 is 13.76 ng/ml.
Molecular Mass	15.4kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 90% as determined by SDS-PAGE.
Storage	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	Il4 interleukin 4 [Rattus norvegicus]
Official Symbol	Il4
Synonyms	IL4; interleukin 4; interleukin-4; IL-4; BSF-1; B-cell growth factor 1; B-cell stimulatory factor 1; lymphocyte stimulatory factor 1; B-cell IGG differentiation factor; Il4e12;
Gene ID	287287

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mRNA Refseq	NM_201270
Protein Refseq	NP_958427
Activity	
SDS-PAGE	

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