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## Product Datasheet

### Rat IL4 protein, His and GST tag, Unconjugated GTX00366-PRO

Article Name	Rat IL4 protein, His and GST tag, Unconjugated
Biozol Catalog Number	GTX00366-PRO
Supplier Catalog Number	GTX00366-pro
Alternative Catalog Number	GTX00366-PRO-10
Manufacturer	GeneTex
Category	Proteine/Peptide
Application	FA
Species Reactivity	Rat
Conjugation	Unconjugated
NCBI	<a href="#">287287</a>
UniProt	<a href="#">P20096</a>
Buffer	Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose, ProClin 300.
Expression System	E. coli
Form	Lyophilized powder
Sequence	N-terminal His and GST-Tag, Asn61~Leu111 (NP_958427.1)

#### Application Notes

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. Besides, Interleukin 2 Receptor Gamma (IL2Rg) has been identified as an interactor of IL4, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat IL4 and recombinant rat IL2Rg. Briefly, IL4 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to IL2Rg-coated microtiter wells and incubated for 2h at 37C. Wells were washed with PBST and incubated for 1h with anti-IL4 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of IL4 and IL2Rg was in a dose dependent manner.