

## 10-2008: Recombinant Anti-TNF $\alpha$ (Adalimumab biosimilar) mAb

<b>Clonality :</b>	Monoclonal
<b>Application :</b>	ELISA, WB
<b>Gene :</b>	TNFA
<b>Gene ID :</b>	7124
<b>Uniprot ID :</b>	P01375
<b>Alternative Name :</b>	Cachectin, TNF-alpha, TNFA, TNFSF2, Tumor necrosis factor ligand superfamily member 2 (TNF-a)
<b>Isotype :</b>	Human IgG1, kappa

### Description

SOURCE: Chinese Hamster Ovary Cells (CHO).

ENDOTOXIN: < 0.1 EU/mL

Adalimumab belongs to the pharmacotherapeutic group 'immunosuppressants, tumour necrosis factor alpha (TNF- $\alpha$ ) inhibitors' (ATC code: L04AB04). The mechanism of action of adalimumab is binding specifically to TNF- $\alpha$  and neutralising its biological function by blocking its interaction with the p55 and p75 cell surface TNF receptors.

Adalimumab is a recombinant human IgG1 monoclonal antibody composed of two kappa light chains each with a molecular weight of approximately 24 kilo Daltons (kDa) and two IgG1 heavy chains each with a molecular weight of approximately 49 kDa based on the amino acid sequence. The total molecular weight of adalimumab with post-translational modifications is approximately 148 kDa. Each light chain consists of 214 amino acid residues and each heavy chain consists of 451 amino acid residues resulting in a total of 1330 amino acids for the entire IgG1 molecule; one glycosylation site (N301) is present. The primary amino-acid sequence of the heavy and light chains is reported.

### Product Info

<b>Amount :</b>	100 $\mu$ g
<b>Purification :</b>	Greater than 98.0% as determined by SDS-PAGE.
<b>Content :</b>	Adalimumab is supplied as solution in 60mM Trehalose, 0.7mM L-Histidine, 0.8mM L-His-Cl, and 30gm/lit Polysorbate 20.
<b>Storage condition :</b>	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Please avoid freeze thaw cycles.

### Application Note

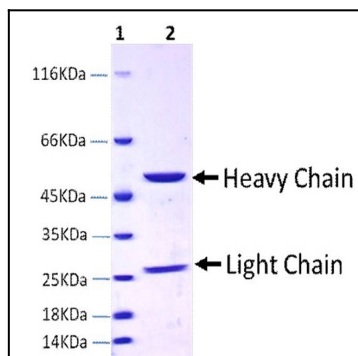


Figure-1: SDS-Page analysis of Adalimumab. Adalimumab was purified by three step chromatography process followed by buffer exchange and concentration.