

Guinea Pig Expression Clone TNF- α , Recombinant in *Escherichia coli*

Catalog No. NR-36037

Product Description: NR-36037 is an expression clone containing the mature peptide region of tumor necrosis factor-alpha, TNF- α , (GenBank: NM_001173025) from *Cavia porcellus* (guinea pig). The TNF- α gene was cloned into vector pQE-30 via *Bam*HI and *Hind*III insertion sites and transformed into *Escherichia coli* (*E. coli*), strain M15, competent cells. The M15 strain of *E. coli* contains a low-copy plasmid, pREP4, which confers kanamycin resistance and constitutively expresses the lac repressor, which is utilized for tight regulation of recombinant protein expression in this strain. The pQE-30 vector contains a T5 promoter, a β -lactamase gene for ampicillin resistance, an N-terminal His-tag for purification, a thrombin cleavage site between the His-tag and the protein, and the *lacI* gene which is used for enhanced protein expression via IPTG induction.

Lot¹: 61161556

Manufacturing Date: 28AUG2012

TEST	SPECIFICATIONS	RESULTS
Purity (post-freeze)²	Report results	Single colony type consistent with <i>E. coli</i>
Plasmid Analysis Sequencing of insert (~ 470 base pairs)	≥ 99% identical to GenBank: NM_001173025 (<i>Cavia porcellus</i> , TNF- α gene)	≥ 99% identical to GenBank: NM_001173025 (<i>Cavia porcellus</i> , TNF- α gene)
Confirmation of pREP4³	Growth	Growth
Viability (post-freeze)²	Growth	Growth

¹24 hours at 37°C and aerobic atmosphere in Luria Bertani (LB) broth containing 100 µg/mL ampicillin with shaking

²24 hours at 37°C and aerobic atmosphere on LB agar containing 100 µg/mL ampicillin

³24 hours at 37°C and aerobic atmosphere on LB agar containing 50 µg/mL kanamycin

Date: 17 OCT 2012

Signature:



Title: Technical Manager, BEI Authentication or designee

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