

## Mouse TNF-alpha ELISA Kit (2 plate)

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| <b>Catalogue No.:</b>       | BEK-2102-2P  |
| <b>Description:</b>         | The mouse TNF-alpha Kit is a sandwich ELISA. The capture antibody is an anti-mouse TNF-alpha antibody pre-coated onto the 96-well strip plates provided in the kit. Mouse test samples and standards of known TNF-alpha concentration are added to these wells and allowed to complex with the bound TNF-alpha antibody. A biotinylated mouse TNF-alpha antibody is then added. This detection antibody binds to the antigen thus completing the sandwich. After washing, an enzyme Avidin-Biotin-Peroxidase complex (ABC) is added which binds to the second antibody. The peroxidase substrate TMB is added to induce a coloured reaction product. The intensity of this coloured product is directly proportional to the concentration of TNF-alpha present in the samples. The purpose of this kit is the in-vitro quantitative determination of mouse TNF-alpha in samples such as sera, plasma, tissue lysates and cell culture supernates. This kit has been configured for research use only and is not to be used in diagnostic or clinical procedures. |
| <b>Batch No.:</b>           | See product labels   |
| <b>Antigen:</b>             | Tumor necrosis factor alpha (TNF-alpha) is a cytokine that belongs to the tumor necrosis factor (TNF) superfamily. TNF-alpha is mainly secreted by macrophages. TNF-alpha is involved in the regulation of many processes such as cell proliferation, differentiation and apoptosis and has been implicated in a variety of diseases including cancer. TNF-alpha is expressed as a single-pass type II membrane protein. A soluble, secreted form is derived from the membrane form by proteolytic processing.   |
| <b>Other Names:</b>         | TNF-alpha; Tumor necrosis factor ligand superfamily member 2; TNF-a; Cachectin; TNF; TNFA; TNFSF2;   |
| <b>Accession:</b>           | P06804 TNFA_MOUSE;   |
| <b>Specificity:</b>         | Mouse TNF-alpha  |
| <b>Storage:</b>             | Store at 2-8C  |
| <b>Specific References:</b> | <p>Cavanagh C, Tse YC, Nguyen HB, Krantic S, Breitner JCS, Quirion R, Wong TP (2016) Inhibiting Tumor Necrosis Factor-<math>\alpha</math>; before amyloidosis prevents synaptic deficits in an Alzheimer's disease model. <i>Neurobiol Aging</i>. 2016;47:41-9</p> <p>Doméné A, Cavanagh C, Page G, Bodard S, Klein C, Delarasse C, Chalon S, Krantic S (2016) Expression of Phenotypic Astrocyte Marker Is Increased in a Transgenic Mouse Model of Alzheimer's Disease versus Age-Matched Controls: A Presymptomatic Stage Study. <i>Int J Alzheimers Dis</i>. 2016;2016:5696241</p> <p>Kunos, G, Jourdan T, Michael P, Aouadi M (2016) Glucan-Encapsulated siRNA for Treating Type 2 Diabetes Mellitus. US Patent Application 20160138028</p> <p>Jourdan T, Godlewski G, Cinar R, Bertola A, Szanda G, Liu J, Tam J, Han T, Mukhopadhyay B, Skarulis MC, Ju C, Aouadi M, Czech MP, Kunos G. (2013) Activation of the Nlrp3 inflammasome in infiltrating macrophages by endocannabinoids mediates beta cell loss in type</p>                                   |

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2 diabetes. Nat. Med Sep;19(9):1132-40 2013 [E print]

Cavanagh C et al (2013)  $\beta$ CTF-Correlated Burst of Hippocampal TNF-alpha Occurs at a Very Early, Pre-Plaque Stage in the TgCRND8 Mouse Model of Alzheimer's Disease. J Alzheimers Dis. 2013 Apr 11.

Vitner EB et al (2012) Contribution of brain inflammation to neuronal cell death in neuronopathic forms of Gaucher's disease. Brain. 2012 Jun;135(Pt 6):1724-35.

**Kit components:**

The ELISA kit box contains 2 x 96-well pre-coated strip plates, protein standards, detection reagents, substrate buffer and detailed protocols.

**Range:**

15.6 pg/mL - 1,000 pg/mL for body fluids, tissue lysates or cell culture supernates. 7.8 pg/mL - 500 pg/mL for mouse sera.

**Sensitivity:**

< 1 pg/ml

**Kit protocol:**

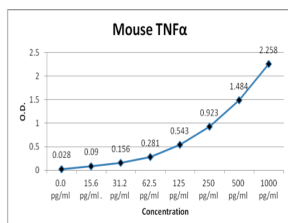
Please refer to our online product listing for current protocol/MSDS versions.

IX: Typical Standard Curve (for reference only, not to be used for actual data)

| Concentration<br>pg/ml | 0.0 pg/ml | 15.6 pg/ml | 31.2 pg/ml | 62.5 pg/ml | 125 pg/ml | 250 pg/ml | 500 pg/ml | 1000 pg/ml |
|------------------------|-----------|------------|------------|------------|-----------|-----------|-----------|------------|
| O.D.                   | 0.028     | 0.090      | 0.156      | 0.281      | 0.543     | 0.923     | 1.484     | 2.258      |

Data obtained after 1h48 reaction of 20-25 minutes @ 37°C

This standard curve is for demonstration purposes only. A standard curve should be generated for each assay.



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