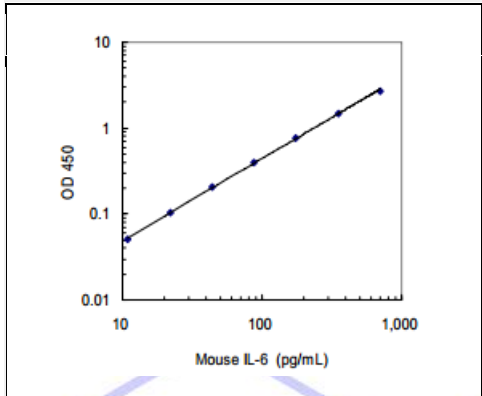


MOUSE INTERLEUKIN-6 (IL-6) ELISA KIT, CAT# 6430-20

The Mouse IL-6 ELISA Kit is a sensitive sandwich ELISA for the measurement of Mouse IL-6 in serum, EDTA and cell culture media.



Mouse IL-6 ELISA Kit Features

- Highly specific Anti- IL-6 IgG pre-coated, stabilized, ready-to-use 96-well strip plate, suitable for multiple runs over 6-12 months.
 - Lyophilized Mouse IL-6 standard at 1400 pg/ml that is used to make additional standards as per manual (**10-700 pg/ml**)
 - 100 ul samples (diluted 1:2-1:100 according to sample concn); Overnight + 1 hour total time. 3 incubation steps.
 - Sensitivity~1.07 pg/ml; Specific for Mouse IL-6 with no detectable cross-reactivity with any other cytokine
 - Storage (2-4°C) , Shelf life : 12-18 months
- Contains all necessary reagents. For in vitro research use only.

Assay Procedure: Allow all reagents to reach room temperature. Arrange and label required number of strips.

- Step 1.** Pipet **100 ul** of pre-diluted stds, samples containing native or recombinant protein, and controls. Mix gently and incubate overnight at 4 C.
- Step 2.** Add wash buffer and wash 7 X. Pipette 100 ul of **anti Mouse IL-6 antibody** conjugate to all wells, mix gently and incubate at 4 C for **30 mins**.
- Step 3.** **Aspirate and wash 6X.** Add 100 ul of the 2nd detection antibody reagent. Mix gently and incubate for 30 min at RT.
- Step 4.** **Aspirate and wash 6X** Add **100 ul of TMB Substrate solution** to all wells, mix gently, and incubate at RT for **30 min**. Blue color develops in positive wells.
- Step 5.** Pipet **100 ul of stop solution** into each well and mix gently (blue color turns yellow). **Measure absorbance at 450 nm**. Determine antibody conc. in each sample using the standards (results are expressed in units/ml).

Calculation of Results

Calculate the Net A450 values of the duplicate (deduct zero values). Plot the IL-6 concentration versus the net A450 and calculate the samples values from the standard curve.

Species reactivity: This kit is optimized for Mouse IL-6. IL-6 detection of other species (mouse, mouse, monkey) etc has not been established.

Intra assay: CV% 3.5-6.8. Inter assay: CV% 3.6 – 6.2

General Information

Interleukin-6 (IL-6) is an interleukin that acts as both a pro-inflammatory and anti-inflammatory cytokine. In humans, it is encoded by the IL6 gene. IL-6 is secreted by T cells and macrophages to stimulate immune response, e.g. during infection and after trauma, especially burns or other tissue damage leading to inflammation. IL-6 also plays a role in fighting infection, as IL-6 has been shown in mice to be required for resistance against bacterium *Streptococcus pneumoniae*. IL-6 is also considered a "myokine," a cytokine produced from muscle, and is elevated in response to muscle contraction. It is significantly elevated with exercise, and precedes the appearance of other cytokines in the circulation. During exercise, it is thought to act in a hormone-like manner to mobilize extracellular substrates and/or augment substrate delivery. Additionally, osteoblasts secrete IL-6 to stimulate osteoclast formation. Smooth muscle cells in the tunica media of many blood vessels also produce IL-6 as a pro-inflammatory cytokine. IL-6's role as an anti-inflammatory cytokine is mediated through its inhibitory effects on TNF-alpha and IL-1, and activation of IL-1ra and IL-10. Interleukin-6 (IL6) has come to be regarded as a potential osteoporotic factor because it has stimulatory effects on cells of the osteoclast lineage, and, thus, may play a role in the pathogenesis of bone loss associated with estrogen deficiency.² IL-6 has many roles essential to the regulation of the immune response, haematopoiesis, and bone resorption.³ It is involved not only in the hepatic acute phase response but also in adipose tissue metabolism, lipoprotein lipase activity, and hepatic triglyceride secretion. Overproduction of IL-6, a proinflammatory cytokine, is associated with a spectrum of age-related conditions including cardiovascular disease, osteoporosis, arthritis, type 2 diabetes, certain cancers, periodontal disease, frailty, and functional decline. BSF-2 is a novel interleukin consisting of 184 amino acids.

Related Items

6430-10 Rat interleukin-6 (rIL-6) ELISA Kit, 96 tests

6430-20 Mouse interleukin-6 (rIL-6) ELISA Kit, 96 tests

6430-30 Human interleukin-6 (rIL-6) ELISA Kit, 96 tests

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