



## Product Information Sheet

### Mouse CXCL10/IP-10 ELISA Kit

<b>Catalog No.</b>	EK0736
<b>Size</b>	96T
<b>Range</b>	31.2pg/ml-2000pg/ml
<b>Sensitivity</b>	< 1pg/ml

#### Specificity

No detectable cross-reactivity with any other cytokine.

#### Storage

Store at 4°C for frequent use, at -20°C for infrequent use.

Avoid multiple freeze-thaw cycles (Shipped with wet ice.)

#### Expiration

Four months at 4°C and eight months at -20°C.

#### Application

For quantitative detection of mouse CXCL10 in sera, plasma, body fluids, tissue lysates or cell culture supernates.

#### Principle

Mouse CXCL10 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. Mouse CXCL10 specific polyclonal antibodies were precoated onto 96-well plates. The mouse specific detection polyclonal antibodies were biotinylated. The test samples and biotinylated detection antibodies were added to the wells subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the mouse CXCL10 amount of sample captured in plate.

#### Kit Components

1. Lyophilized recombinant mouse CXCL10 standard: 10ng/tubex2.
2. One 96-well plate precoated with anti- mouse CXCL10 antibody.
3. Sample diluent buffer: 30 ml
4. Biotinylated anti- mouse CXCL10 antibody: 130µl, dilution 1:100.
5. Antibody diluent buffer: 12ml.
6. Avidin-Biotin-Peroxidase Complex (ABC): 130µl, dilution 1:100.
7. ABC diluent buffer: 12ml.
8. TMB color developing agent: 10ml.
9. TMB stop solution: 10ml.

#### Material Required But Not Provided

1. Microplate reader in standard size and Automated plate washer.
2. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended if there is a large amount of samples.
3. Clean tubes and Eppendorf tubes.
4. Washing buffer (neutral PBS or TBS).

Preparation of 0.01M **TBS**: Add 1.2g Tris, 8.5g NaCl; 450µl of purified acetic acid or 700µl of concentrated hydrochloric acid to 1000ml H<sub>2</sub>O and adjust pH to 7.2-7.6. Finally, adjust the total volume to 1L.

Preparation of 0.01 M **PBS**: Add 8.5g sodium chloride, 1.4g Na<sub>2</sub>HPO<sub>4</sub> and 0.2g NaH<sub>2</sub>PO<sub>4</sub> to 1000ml distilled water and adjust pH to 7.2-7.6. Finally, adjust the total volume to 1L.

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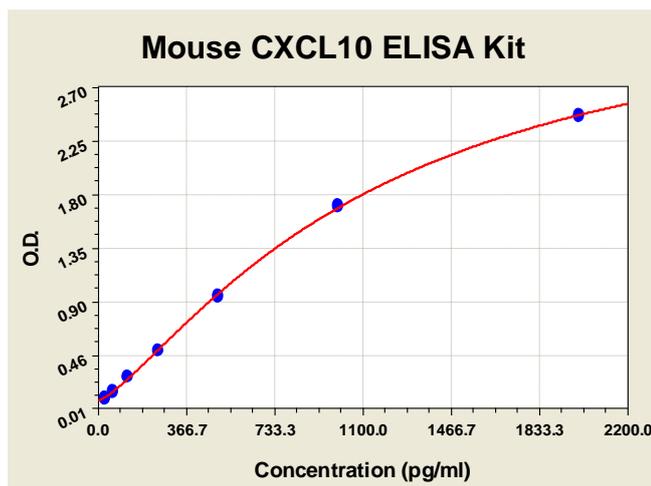
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## Notice for Application of Kit

1. Before using Kit, spin tubes and bring down all components to bottom of tube.
2. Duplicate well assay was recommended for both standard and sample testing.
3. Don't let 96-well plate dry, dry plate will inactivate active components on plate.
4. In order to avoid marginal effect of plate incubation due to temperature difference (reaction may be stronger in the marginal wells), it is suggested that the diluted ABC and TMB solution will be pre-warmed in 37°C for 30 min before using.

## Mouse CXCL10 ELISA Kit-1X96 Well Plate Image



## Background

Chemokine (C-X-C motif) ligand 10 (CXCL10) or IP-10 is a small cytokine belonging to the CXC chemokine family that is also known as 10 kDa interferon-gamma-induced protein ( $\gamma$ -IP10 or IP-10). CXCL10 is secreted by several cell types in response to IFN- $\gamma$ . These cell types include monocytes, endothelial cells and fibroblasts.<sup>1</sup> CXCL10 has been attributed to several roles, such as chemoattraction for monocytes/macrophages, T cells, NK cells, and dendritic cells, promotion of T cell adhesion to endothelial cells, antitumor activity, and inhibition of bone marrow colony formation and angiogenesis.<sup>2,3</sup> It is a potent inhibitor of angiogenesis *in vivo*.<sup>4</sup> The gene for CXCL10 is located on human chromosome 4 in a cluster among several other CXC chemokines.<sup>5</sup> It is a RAS target gene and is overexpressed in the majority of colorectal cancers.<sup>6</sup> This chemokine elicits its effects by binding to the cell surface chemokine receptor CXCR3.<sup>7</sup>

## Reference

1. Luster et al. Gamma-interferon transcriptionally regulates an early-response gene containing homology to platelet proteins. *Nature* 315: 672-676, 1985.
2. Dufour et al. IFN-gamma-inducible protein 10 (IP-10; CXCL10) -deficient mice reveal a role for IP-10 in effector T cell generation and trafficking. *J. Immun.* 168:, 2002.
3. Angiolillo et al. Human interferon-inducible protein 10 is a potent inhibitor of angiogenesis *in vivo*. *J. Exp. Med.* 182: 155-162, 1995.
4. Angiolillo, A. L.; Sgadari, C.; Taub, D. D.; Liao, F.; Farber, J. M.; Maheshwari, S.; Kleinman, H. K.; Reaman, G. H.; Tosato, G. : Human interferon-inducible protein 10 is a potent inhibitor of angiogenesis *in vivo*. *J. Exp. Med.* 182: 155-162, 1995.
5. O'Donovan et al. Physical mapping of the CXC chemokine locus on human chromosome 4. *Cytogenet. Cell Genet.* 84: 39-42, 1999.
6. Zhang, R.; Zhang, H.; Zhu, W.; Pardee, A. B.; Coffey, R. J., Jr.; Liang, P. : Mob-1, a Ras target gene, is overexpressed in colorectal cancer. *Oncogene* 14: 1607-1610, 1997.
7. Booth et al. The CXCR3 binding chemokine IP-10/CXCL10: structure and receptor interactions. *Biochemistry* 41:, 2002.

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