ARG82913
arigoPLEX® Mouse M1/M2 Cytokines Multiplex ELISA Kit (IL4, IL6, IL10, TNF alpha)

Package: 96 wells
Store at: 4°C, -20°C

Summary

Product Description	ARG82913 arigoPLEX® Mouse M1/M2 Cytokines Multiplex ELISA Kit (IL4, IL6, IL10, TNF alpha) is an Enzyme Immunoassay kit for the quantification of IL4, IL6, IL10, TNF alpha in serum, plasma and cell culture supernatant. See all Multiplex ELISA kits
Tested Reactivity	Ms
Tested Application	ELISA
Target Name	M1/M2 Cytokine
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm
Sensitivity	IL4: 15.6 pg/ml IL6: 31.25 pg/ml IL10: 7.8 pg/ml TNF alpha: 15.6 pg/ml
Sample Type	Serum, plasma and cell culture supernatants.
Standard Range	IL4: 31.25 - 1000 pg/ml IL6: 62.5 - 2000 pg/ml IL10: 15.6 - 500 pg/ml TNF alpha: 31.25 - 1000 pg/ml
Sample Volume	50 µl

Application Instructions

Assay Time	5.5 hours

Properties

Form	96 well
Storage instruction	Store components at 4°C or -20°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	IL4; IL6; IL10; TNF
Gene Full Name	Interleukin 4; Interleukin 6; Interleukin 10; Tumor Necrosis Factor

Background	IL4:The protein encoded by this gene is a pleiotropic cytokine produced by activated T cells. This cytokine is a ligand for interleukin 4 receptor. The interleukin 4 receptor also binds to IL13, which may contribute to many overlapping functions of this cytokine and IL13. STAT6, a signal transducer and activator of transcription, has been shown to play a central role in mediating the immune regulatory signal of this cytokine. This gene, IL3, IL5, IL13, and CSF2 form a cytokine gene cluster on chromosome 5q, with this gene particularly close to IL13. This gene, IL13 and IL5 are found to be regulated coordinately by several long-range regulatory elements in an over 120 kilobase range on the chromosome. IL4 is considered an important cytokine for tissue repair, counterbalancing the effects of proinflammatory type 1 cytokines, however, it also promotes allergic airway inflammation. Moreover, IL-4, a type 2 cytokine, mediates and regulates a variety of human host responses such as allergic, anti-parasitic, wound healing, and acute inflammation. This cytokine has been reported to promote resolution of neutrophil-mediated acute lung injury. In an allergic response, IL-4 has an essential role in the production of allergen-specific immunoglobin (Ig) E. This pro-inflammatory cytokine has been observed to be increased in COVID-19 (Coronavirus disease 2019) patients, but is not necessarily associated with severe COVID-19 pathology. Two alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported. [provided by RefSeq, Aug 2020] IL6:This gene encodes a cytokine that functions in inflammation and the maturation of B cells. In addition, the encoded protein has been shown to be an endogenous pyrogen capable of inducing fever in people with autoimmune diseases or infections. The protein is primarily produced at sites of acute and chronic inflammation, where it is secreted into the serum and induces a transcriptional inflammatory response through interleukin 6 receptor, alpha. The functioning of this gene is implicated in a wide variety of inflammation-associated disease states, including suspectibility to diabetes mellitus and systemic juvenile rheumatoid arthritis. Elevated levels of the encoded protein have been found in virus infections, including COVID-19 (disease caused by SARS-CoV-2). [provided by RefSeq, Aug 2020] IL10:The protein encoded by this gene is a cytokine produced primarily by monocytes and to a lesser extent by lymphocytes. This cytokine has pleiotropic effects in immunoregulation and inflammation. It down-regulates the expression of Th1 cytokines, MHC class II Ags, and costimulatory molecules on macrophages. It also enhances B cell survival, proliferation, and antibody production. This cytokine can block NF-kappa B activity, and is involved in the regulation of the JAK-STAT signaling pathway. Knockout studies in mice suggested the function of this cytokine as an essential immunoregulator in the intestinal tract. Mutations in this gene are associated with an increased susceptibility to HIV-1 infection and rheumatoid arthritis. [provided by RefSeq, May 2020] TNF alpha:This gene encodes a multifunctional proinflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily. This cytokine is mainly secreted by macrophages. It can bind to, and thus functions through its receptors TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. This cytokine is involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. This cytokine has been implicated in a variety of diseases, including autoimmune diseases, insulin resistance, psoriasis, rheumatoid arthritis ankylosing spondylitis, tuberculosis, autosomal dominant polycystic kidney disease, and cancer. Mutations in this gene affect susceptibility to cerebral malaria, septic shock, and Alzheimer disease. Knockout studies in mice also suggested the neuroprotective function of this cytokine. [provided by RefSeq, Aug 2020]
Function	IL4:Cytokine secreted primarily by mast cells, T-cells, eosinophils, and basophils that plays a role in regulating antibody production, hematopoiesis and inflammation, and the development of effector T-cell response. [UniProt] IL6:Through activation of IL6ST-YAP-NOTCH pathway, induces inflammation-induced epithelial regeneration (By similarity). [UniProt] IL10:Major immune regulatory cytokine that acts on many cells of the immune system where it has profound anti-inflammatory functions, limiting excessive tissue disruption caused by inflammation. Mechanistically, IL10 binds to its heterotetrameric receptor comprising IL10RA and IL10RB leading to JAK1 and STAT2-mediated phosphorylation of STAT3. [UniProt] TNF alpha:Plays a role in angiogenesis by inducing VEGF production synergistically with IL1B and IL6. Promotes osteoclastogenesis and therefore mediates bone resorption (By similarity). [UniProt]
Highlight	ALL M1/M2 Cytokines Multiplex ELISA Kits IL4 antibodies; IL6 antibodies;

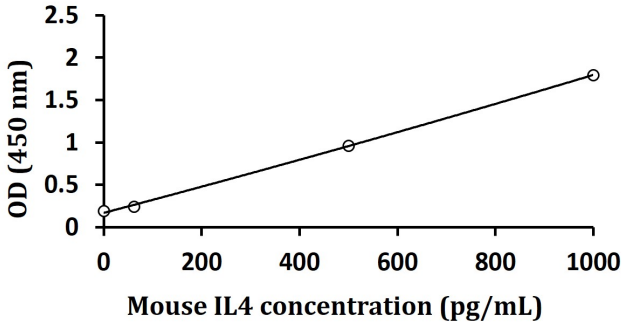
IL10 antibodies;
TNF alpha antibodies;

Related news:
M1/M2 Cytokine Multiplex ELISA Kit is launched;

Images

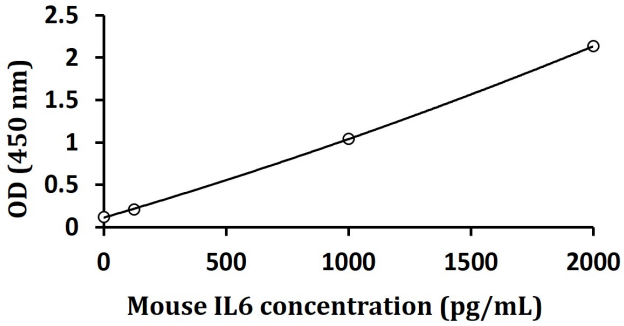
	1	2	3	4	5	6	7	8	9	10	11	12
A	IL-4	IL-4	IL-4	IL-4	IL-4	IL-4	IL-4	IL-4	IL-4	IL-4	IL-4	IL-4
B	IL-6	IL-6	IL-6	IL-6	IL-6	IL-6	IL-6	IL-6	IL-6	IL-6	IL-6	IL-6
C	IL-10	IL-10	IL-10	IL-10	IL-10	IL-10	IL-10	IL-10	IL-10	IL-10	IL-10	IL-10
D	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α
E	IL-4	IL-4	IL-4	IL-4	IL-4	IL-4	IL-4	IL-4	IL-4	IL-4	IL-4	IL-4
F	IL-6	IL-6	IL-6	IL-6	IL-6	IL-6	IL-6	IL-6	IL-6	IL-6	IL-6	IL-6
G	IL-10	IL-10	IL-10	IL-10	IL-10	IL-10	IL-10	IL-10	IL-10	IL-10	IL-10	IL-10
H	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α	TNF-α

Antibodies Coating Pattern In Microtiter Plate of ARG82913 arigoPLEX® Mouse M1/M2 Cytokines multiplex ELISA Kit (IL4, IL6, IL10, TNF alpha)



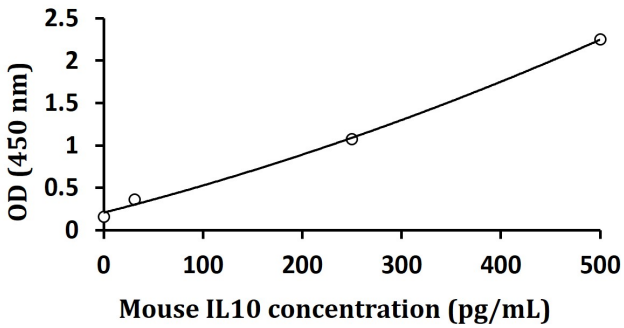
ARG82913 arigoPLEX® Mouse M1/M2 Cytokines multiplex ELISA Kit (IL4, IL6, IL10, TNF alpha) standard curve image

ARG82913 arigoPLEX® Mouse M1/M2 Cytokines multiplex ELISA Kit (IL4, IL6, IL10, TNF alpha) results of a typical standard for Mouse IL4 run with optical density reading at 450 nm.



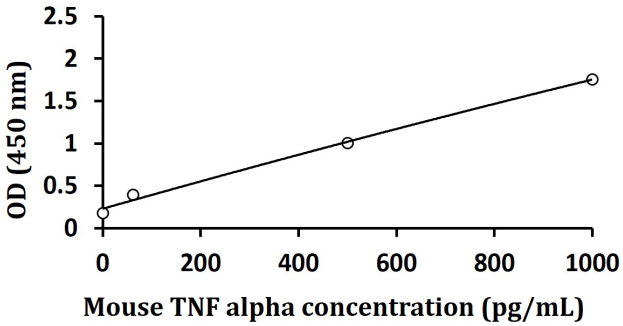
ARG82913 arigoPLEX® Mouse M1/M2 Cytokines multiplex ELISA Kit (IL4, IL6, IL10, TNF alpha) standard curve image

ARG82913 arigoPLEX® Mouse M1/M2 Cytokines multiplex ELISA Kit (IL4, IL6, IL10, TNF alpha) results of a typical standard for Mouse IL6 run with optical density reading at 450 nm.



ARG82913 arigoPLEX® Mouse M1/M2 Cytokines multiplex ELISA Kit (IL4, IL6, IL10, TNF alpha) standard curve image

ARG82913 arigoPLEX® Mouse M1/M2 Cytokines multiplex ELISA Kit (IL4, IL6, IL10, TNF alpha) results of a typical standard for Mouse IL10 run with optical density reading at 450 nm.



ARG82913 arigoPLEX® Mouse M1/M2 Cytokines multiplex ELISA Kit (IL4, IL6, IL10, TNF alpha) standard curve image

ARG82913 arigoPLEX® Mouse M1/M2 Cytokines multiplex ELISA Kit (IL4, IL6, IL10, TNF alpha) results of a typical standard for Mouse TNF alpha run with optical density reading at 450 nm.