

10-3523: Monoclonal Antibody to mouse IFN- alpha(Discontinued)

Clonality :	Monoclonal
Clone Name :	F18
Application :	FACS
Reactivity :	Mouse
Gene :	Ifna1
Gene ID :	15962
Uniprot ID :	P01572
Alternative Name :	Interferon alpha-1
Isotype :	Rat IgG1

Description

The monoclonal antibody F18 recognizes and neutralizes both natural and recombinant mouse alpha Interferon (IFN-alpha). IFN-alpha is a cytokine that belongs to the type I interferons (IFN-I). IFN-alpha is secreted by many cell types including lymphocytes (NK cells, B-cells and T-cells), macrophages, fibroblasts, endothelial cells, osteoblasts, microglia and others. Interferons stimulate both macrophages and NK cells to elicit an anti-viral response, and are also active against tumors. Although all cells can produce IFN-I, plasmacytoid dendritic cells (pDCs) produce 1,000-fold higher levels than other cell types, and are responsible for systemic IFN-I responses to many viruses. They are coined as the natural IFN-producing cells. However, under deprived pDC condition, other dendritic cells are capable of producing high levels of IFN-I. Interferons were initially characterized for their ability to 'interfere' with viral replication, slow cell proliferation, and profoundly alter immunity. IFN-alpha has several regulatory roles and diverse biological activities, including control of cellular and humoral immune responses, inflammation, and tumor regression. In addition, IFN-alpha participates in the regulation of various cellular and humoral processes such as the endocrine system modulates behavior, brain activity, temperature, glucose sensitive neurons, feeding pattern and opiate activity. With the availability of monoclonal antibodies directed against IFN-alpha, it is possible to interpret results obtained from crude materials containing both IFN-alpha and IFN beta. The difficulties in studying in vitro and in vivo effects of 'type 1'. Interferons arise from the fact that both alpha and beta Interferons are produced in response to the same stimuli and also seem to act via the same receptor. These Interferon activities can only be distinguished from one another by use of specific neutralizing antibodies.

Product Info

Amount :	alpha(Discontinued) / 500 µg
Content :	0.5 mg, 0.2 µm filtered protein G purified antibody solution in PBS, containing 0.1% bovine serum albumin. The endotoxin concentration is < 24 EU/mg, determined with HIT302 LAL Assay.
Storage condition :	Product should be stored at 4 °C. Under recommended storage conditions, product is stable for one year.

Application Note

FACS analysis: For intracellular staining of IFN-alpha, cells can be fixed in 1 % formaldehyde; blocked and permeabilized in 0.2 % saponin, 5 % normal rabbit serum for 30 minutes on ice. Functional Assay: Neutralization of IFN-alpha by adding 1 µg antibody F18 per mouse i.v. before treatment with 35 µg LPS i.p., decreased the LPS-induced IL-1 beta serum response. Immuno Assay: This antibody has been used as a capture antibody to determine specificity.