ARG43114
anti-TNF alpha antibody [TNFA/1172]

Package: 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [TNFA/1172] recognizes TNF alpha
Tested Reactivity	Hu, Rat
Tested Application	FACS, ICC/IF, IHC-P
Host	Mouse
Clonality	Monoclonal
Clone	TNFA/1172
Isotype	IgM, kappa
Target Name	TNF alpha
Species	Human
Immunogen	Recombinant full length Human TNF alpha protein.
Conjugation	Un-conjugated
Alternate Names	Tumor necrosis factor ligand superfamily member 2; DIF; Cachectin; ICD2; ICD1; N-terminal fragment; TNF-a; TNFA; TNFSF2; TNF-alpha; Tumor necrosis factor; NTF

Application Instructions

Application table

Application	Dilution
FACS	1 - 2 µg/10^6 cells
ICC/IF	1 - 2 µg/ml
IHC-P	2 - 4 µg/ml

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

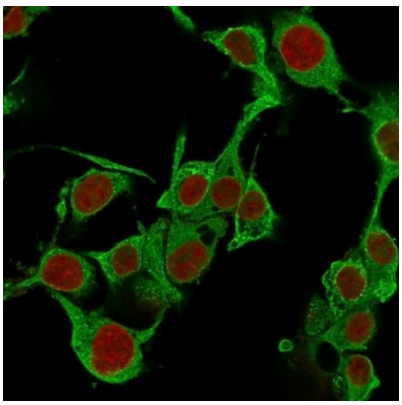
Form	Liquid
Purification	Purified
Buffer	PBS, 0.05% Sodium azide and 0.1 mg/ml BSA.
Preservative	0.05% Sodium azide
Stabilizer	0.1 mg/ml BSA
Concentration	0.2 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

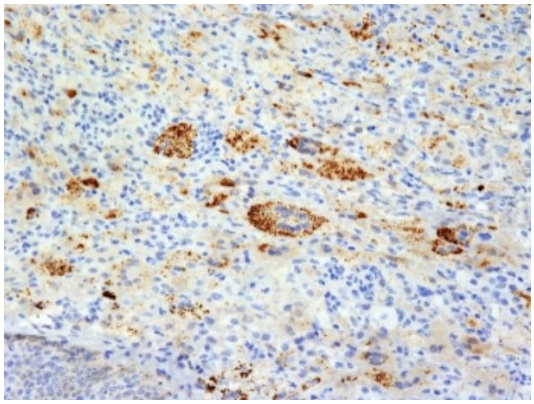
Gene Symbol	TNF
Gene Full Name	tumor necrosis factor
Function	Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin-1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation. Impairs regulatory T-cells (Treg) function in individuals with rheumatoid arthritis via FOXP3 dephosphorylation. Upregulates the expression of protein phosphatase 1 (PP1), which dephosphorylates the key 'Ser-418' residue of FOXP3, thereby inactivating FOXP3 and rendering Treg cells functionally defective (PubMed:23396208). Key mediator of cell death in the anticancer action of BCG-stimulated neutrophils in combination with DIABLO/SMAC mimetic in the RT4v6 bladder cancer cell line (PubMed:22517918, PubMed:16829952, PubMed:23396208). Induces insulin resistance in adipocytes via inhibition of insulin-induced IRS1 tyrosine phosphorylation and insulin-induced glucose uptake. Induces GKAP42 protein degradation in adipocytes which is partially responsible for TNF-induced insulin resistance (By similarity). The TNF intracellular domain (ICD) form induces IL12 production in dendritic cells. [UniProt]
Highlight	Related products: TNF alpha antibodies; TNF alpha ELISA Kits; TNF alpha Duos / Panels; TNF alpha recombinant proteins; Anti-Mouse IgM secondary antibodies; Related news: HMGB1 in inflammation Inflammatory Cytokines
Calculated Mw	26 kDa
PTM	The soluble form derives from the membrane form by proteolytic processing. The membrane-bound form is further proteolytically processed by SPPL2A or SPPL2B through regulated intramembrane proteolysis producing TNF intracellular domains (ICD1 and ICD2) released in the cytosol and TNF C-domain 1 and C-domain 2 secreted into the extracellular space. The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1. O-glycosylated; glycans contain galactose, N-acetylgalactosamine and N-acetylneuraminic acid. [UniProt]
Cellular Localization	Cell membrane; Single-pass type II membrane protein. Tumor necrosis factor, membrane form: Membrane; Single-pass type II membrane protein. Tumor necrosis factor, soluble form: Secreted. C-domain 1: Secreted. C-domain 2: Secreted. [UniProt]

Images



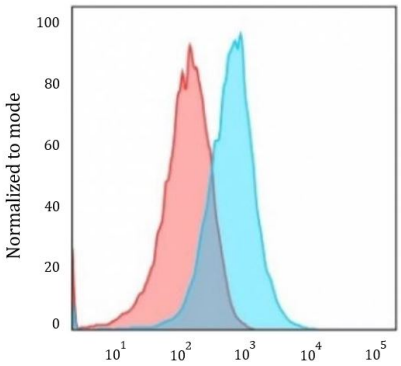
ARG43114 anti-TNF alpha antibody [TNFA/1172] ICC/IF image

Immunofluorescence: PFA-fixed HepG2 cells stained with ARG43114 anti-TNF alpha antibody [TNFA/1172] (green). Reddot (red) for nuclear staining.



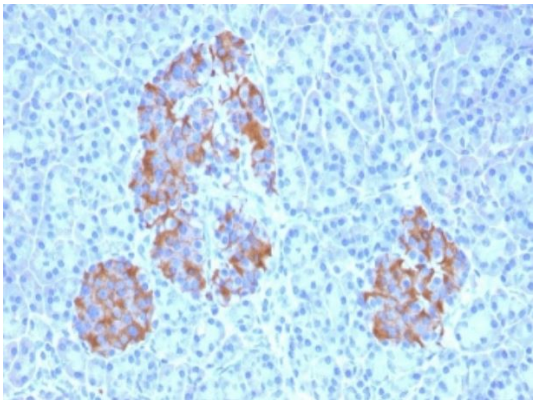
ARG43114 anti-TNF alpha antibody [TNFA/1172] IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human Erdheim Chester disease (also known as polyostotic lerosing histiocytosis) stained with ARG43114 anti-TNF alpha antibody [TNFA/1172].



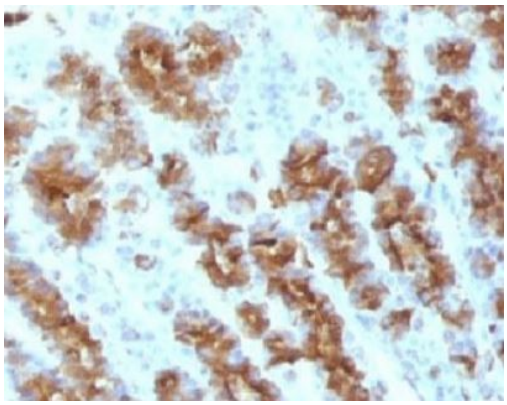
ARG43114 anti-TNF alpha antibody [TNFA/1172] FACS image

Flow Cytometry: PFA-fixed HepG2 cells stained with ARG43114 anti-TNF alpha antibody [TNFA/1172] (blue); Isotype control (red).



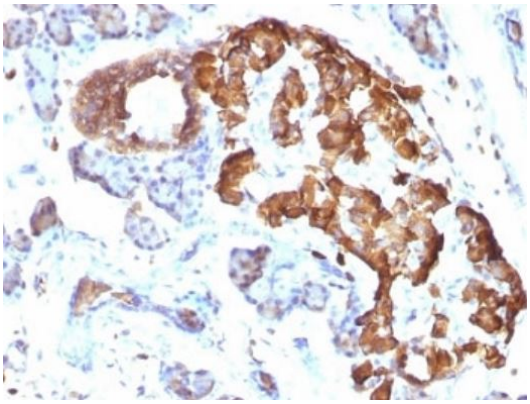
ARG43114 anti-TNF alpha antibody [TNFA/1172] IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human pancreas tissue stained with ARG43114 anti-TNF alpha antibody [TNFA/1172].



ARG43114 anti-TNF alpha antibody [TNFA/1172] IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Rat stomach tissue stained with ARG43114 anti-TNF alpha antibody [TNFA/1172].



ARG43114 anti-TNF alpha antibody [TNFA/1172] IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Rat pancreas tissue stained with ARG43114 anti-TNF alpha antibody [TNFA/1172].