ARG10158
anti-TNF alpha antibody [2C8]

Package: 100 µg, 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [2C8] recognizes TNF alpha
Tested Reactivity	Hu, Ms
Tested Application	ELISA, FACS, ICC/IF, IHC-Fr, IHC-P, Neut, WB
Host	Mouse
Clonality	Monoclonal
Clone	2C8
Isotype	IgG1
Target Name	TNF alpha
Species	Human
Immunogen	Human recombinant tumor necrosis factor of alpha type
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
ELISA	Assay-dependent. (capture - detection): 2C8 - F6C5.
FACS	1µg for 10^6 cells
ICC/IF	10-20 µg/ml
IHC-Fr	10-20 µg/ml
IHC-P	10-20 µg/ml
Neut	Assay-dependent
WB	Assay-dependent

Application Note

Neutralizing: The clone [2C8] inhibit biological activity of TNF-alpha. The antibody concentration is depending on the test design from 10 ng/ml to 5 µg/ml.
ELISA: The clone 2C8 can be used as a capture antibody in sandwich ELISA in combination with a tracer/detection antibody clone [F6C5] (Cat. No.: ARG10441).
IHC-P: Antigen Retrieval: Boil tissue section in EDTA pH8.0 or pH9.0.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

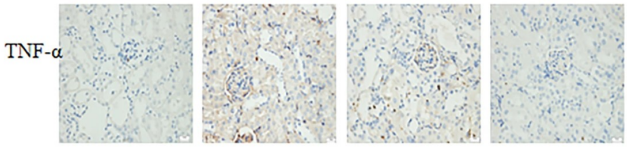
Form	Liquid

Purification	Protein A affinity purified.
Buffer	PBS (pH 7.4) and 0.09% Sodium azide
Preservative	0.09% Sodium azide
Concentration	1 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

Database links	GeneID: 21926 Mouse GeneID: 7124 Human Swiss-port # P01375 Human Swiss-port # P06804 Mouse
Gene Symbol	TNF
Gene Full Name	tumor necrosis factor
Background	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, and cancer. Knockout studies in mice also suggested the neuroprotective function of this cytokine. [provided by RefSeq, Jul 2008]
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). 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 IgG secondary antibodies; Related news: HMGB1 in inflammation Inflammatory Cytokines
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Immune System antibody; Metabolism antibody; Signaling Transduction antibody
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.

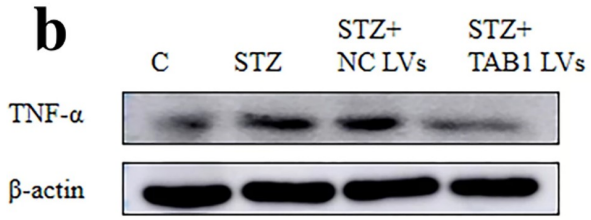
Images



ARG10158 anti-TNF alpha antibody [2C8] IHC-P image

Immunohistochemistry: Mouse Renal tissue stained with ARG10158 anti-TNF alpha antibody [2C8].

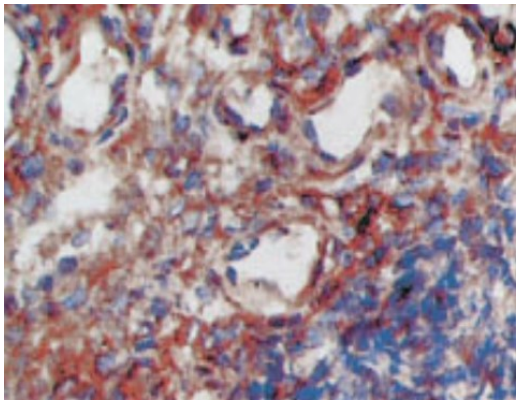
From Hanxu Zeng et al. Inflamm Res. (2020), doi: 10.1007/s00011-020-01411-4, Fig. 10a.



ARG10158 anti-TNF alpha antibody [2C8] WB image

Western blot: Mouse Renal tissue stained with ARG10158 anti-TNF alpha antibody [2C8].

From Hanxu Zeng et al. Inflamm Res. (2020), doi: 10.1007/s00011-020-01411-4, Fig. 10a.



ARG10158 anti-TNF alpha antibody [2C8] IHC-Fr image

Immunohistochemistry: Frozen section of human joint from a patient with rheumatoid arthritis stained with ARG10158 anti-TNF alpha antibody [2C8].