EliteRmab®

Anti-Mouse TNF-alpha/TNFA Neutralizing Antibody

Catalog Number:50349-RN023

Sino Biological
Biological Solution Specialist

General Information	
Immunogen:	Recombinant Mouse TNF-alpha /TNFA Protein (Catalog#50349-MNAE)
Clone ID:	R023
Ig Type:	Rabbit IgG
Applications:	Neutralization
Specificity:	Mouse TNF-alpha /TNFA
Formulation:	0.2 μm filtered solution in Histidine and Arginine buffer containing 120mM NaCl, 0.02% Tween 80, pH6.0
Storage:	< -20℃

Character	Method	Result
Specificity	ELISA	Recombinant Mouse TNF-alpha /TNFA Protein (Catalog#50349-MNAE)
Antibody concentration	UV	> 1 mg/mL
Aggregation	SEC-HPLC	< 5% aggregation
Purity	SDS-PAGE	> 95%
Endotoxin	LAL gel clotting	< 3 EU/mg

Preparation

This antibody was obtained from a rabbit immunized with purified, recombinant mouse TNF-α (Catalog#50349-MNAE; NP_038721.1; Leu 80-Leu 235) and was produced using recombinant antibody technology.

Specificity

Mouse TNF-alpha/TNFA
Has cross-reactivity with Human TNF-alpha/TNFA (Catalog#10602-HNAE) in ELISA assay

Storage

This antibody can be stored at 2℃-8℃ for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20℃ to -80℃. **Preservative-Free.**
Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. **Avoid repeated freeze-thaw cycles.**

Background

Tumor necrosis factor alpha (TNF-alpha), also known as TNF, TNFA or TNFSF2, is the prototypic cytokine of the TNF superfamily, and is a multifunctional molecule involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. Two receptors, TNF-R1 (TNF receptor type 1; CD120a; p55/60) and TNF-R2 (TNF receptor type 2; CD120b; p75/80), bind to TNF-alpha. TNF-alpha protein is produced mainly by macrophages, and large amounts of this cytokine are released in response to lipopolysaccharide, other bacterial products, and Interleukin-1 (IL-1). TNF-alpha is involved in fighting against the tumorigenesis, thus, is regarded as a molecular insight in cancer treatment.

Reference

1. Hector J, et al. (2007) TNF-alpha alters visfatin and adiponectin levels in human fat. Horm Metab Res. 39(4): 250-5.
2. Berthold-Losleben M, et al. (2008) The TNF-alpha System: Functional Aspects in Depression, Narcolepsy and Psychopharmacology. Curr Neuropharmacol. 6(3): 193-202.

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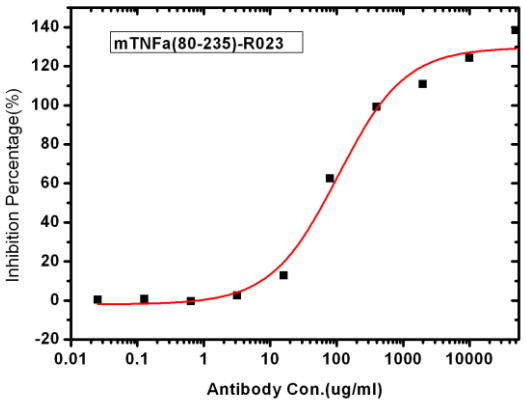
Applications

Block – In a functional ELISA which immobilized Recombinant Mouse TNF-alpha/TNFA Protein(Catalog#50349-MNAE) at 0.2 μg/mL(100 μL/well) in the plate, the Rabbit Anti-Mouse TNF-alpha Monoclonal Antibody(Catalog#50349-RN023) can block the binding of 2 μg/mL of Recombinant Mouse TNF-alpha to Human TNFR1(Catalog#10872-H08H) ,the EC50 is 0.33 μg/mL;

In a functional ELISA which immobilized Recombinant Mouse TNF-alpha/TNFA Protein(Catalog#50349-MNAE) at 0.2 μg/mL(100 μL/well) in the plate, the Rabbit Anti-Mouse TNF-alpha Monoclonal Antibody (Catalog#50349-RN023) can block the binding of 2 μg/mL of Recombinant Mouse TNF-alpha to Human TNFR2(Catalog#10417-H08H) ,the EC50 is 1.41 μg/mL.

Neutralization – The neutralization anctivity of Mouse TNF-alpha Antibody measured by its ability to neutralize TNF-alpha induced cytotoxicity in the L-929 mouse fibroblast cell line.



Cytotoxicity Induced by TNFα and Neutralization by Mouse TNFα Antibody. Recombinant Mouse TNFα(Catalog#50349-MNAE) induces cytotoxicity in the L929 mouse fibroblast cell line . Cytotoxicity elicited by Recombinant Mouse TNFα is neutralized by increasing concentrations of Mouse TNFα Monoclonal Antibody (Catalog#50349-RN023). The ND50 is typically 52-156 ng/mL in the presence of 0.1ng/ml Recombinant Mouse TNF-α and 1 μg/mL actinomycin D.