EliteRmab®

Anti-Mouse TNFR2 / CD120b / TNFRSF1B Neutralizing Antibody

Catalog Number: 50128-RN204

General Information	
Immunogen:	Mouse TNFR2 / CD120b / TNFRSF1B Protein (Catalog#50128-M08H)
Clone ID:	R204
Ig Type:	Rabbit IgG
Applications:	Neutralization
Specificity:	Mouse TNFR2 / CD120b / TNFRSF1B
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	Mouse TNFR2 / CD120b / TNFRSF1B Protein (Catalog#50128-M08H)
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, Mouse TNFRSF1B (Catalog#50128-M08H;NP_035740.2) and was produced using recombinant antibody technology.

Specificity

Mouse TNFR2 / CD120b / TNFRSF1B

Has no cross-reactivity with Human TNFR2 / TNFRSF1B (Catalog#10417-H08H) and Cynomolgus TNFR2 / TNFRSF1B 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 receptor superfamily, member 1B (TNFRSF1B), also known as Tumor necrosis factor receptor 2 (TNFR2) or CD120b antigen, is a member of the tumor necrosis factor receptor superfamily. TNFR2/CD120b/TNFRSF1B is a member of the TNF-receptor superfamily. This protein and TNF-receptor 1 form a heterocomplex that mediates the recruitment of two anti-apoptotic proteins, c-IAP1 and c-IAP2, which possess E3 ubiquitin ligase activity. Knockout studies in mice also suggest a role of this protein in protecting neurons from apoptosis by stimulating antioxidative pathways. TNFR2/CD120b/TNFRSF1B is not a major contributing factor to the genetic risk of type 2 diabetes, its associated peripheral neuropathy and hypertension and related metabolic traits in North Indians. Tumor necrosis factor receptor superfamily, member 1B (TNFRSF1B) has been reported to be associated with SLE risk in Japanese populations. TNFR2/CD120b/TNFRSF1B serves as a receptor with high affinity for TNFSF2 and approximately 5-fold lower affinity for homotrimeric TNFSF1. This receptor mediates most of the metabolic effects of TNF-alpha. Isoform 2 blocks TNF-alpha-induced apoptosis, which suggests that it regulates TNF-alpha function by antagonizing its biological activity.

Reference

1.Komata T, *et al.* (1999) Association of tumor necrosis factor receptor 2 (TNFR2) polymorphism with susceptibility to systemic lupus erythematosus. Tissue Antigens. 53(6): 527-33.

2.Tsuchiya N, *et al.* (2001) Analysis of the association of HLA-DRB1, TNFalpha promoter and TNFR2 (TNFRSF1B) polymorphisms with SLE using transmission disequilibrium test. Genes Immun. 2(6): 317-22.

3.Guo G, *et al.* (1999) Role of TNFR1 and TNFR2 receptors in tubulointerstitial fibrosis of obstructive nephropathy. Am J Physiol. 277(5): 766-72.

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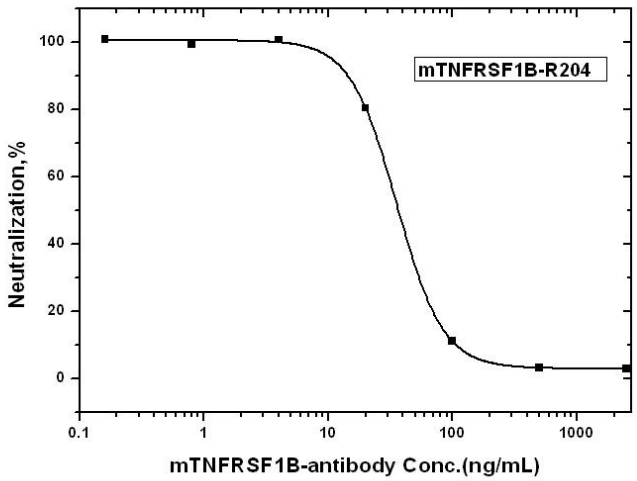
Applications

Block – In a functional ELISA which immobilized Mouse TNFα (Catalog#50349-MNAE) at 0.4 μg/mL (100 μL/well) in the plate, the Rabbit anti-Mouse TNFR2/TNFRSF1B Monoclonal Antibody (Catalog#501528-R204) can block the binding of 0.5 μg/mL of biotinylated Mouse TNFR2/TNFRSF1B (Catalog#50128-H02H) to Mouse TNFα, the EC50 is 0.2-0.7 μg/mL.

Neutralization – The neutralization activity of mouse TNFRSF1B neutralizing antibody is measured by its ability to neutralize mTNFRSF1B-mediated inhibition of cytotoxicity in the L-929 mouse fibroblast cell line. The Neutralization Dose(ND50) is typically 16-50 ng/mL in the presence of 25ng/mL mTNFRSF1B,0.5ng/mL mouse TNFa,and 1ug/mL actinomycin D.



Mouse TNFRSF1B Inhibition of Mouse TNFα-induced Cytotoxicity and Neutralization by Mouse TNFRSF1B Antibody. Recombinant Mouse TNFRSF1B (Catalog#50128-M02H) inhibits Recombinant Mouse TNFα(Catalog#50349-MNAE) induced cytotoxicity in the L-929 mouse fibroblast cell line. Inhibition of Recombinant Mouse TNFα(0.5 ng/mL) activity elicited by Recombinant Mouse TNFRSF1B (25 ng/mL) is neutralized by increasing concentrations of Rabbit Anti-Mouse TNFRSF1B Monoclonal Antibody (Catalog#50128-RN204). The ND50 is typically 16-50 ng/mL in the presence of the metabolic inhibitor actinomycin D (1 μg/mL).