Datasheet for ABIN2661297

anti-TGFB1 antibody (Biotin)

1 Image

Go to Product page

Overview

Quantity:	50 µg
Target:	TGFB1
Reactivity:	Human, Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This TGFB1 antibody is conjugated to Biotin
Application:	Flow Cytometry (FACS)

Product Details

Clone:	19D8
Isotype:	IgG1 kappa
Purification:	The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.

Target Details

Target:	TGFB1
Alternative Name:	TGF-Beta1 (TGFB1 Products)
Background:	TGF-β1 is a multifunctional cytokine that plays pivotal roles in diverse biological processes. TGF-β1 is synthesized as a 390 amino acid precursor that is cleaved by furin, localized in the trans-Golgi network, in residue 278. Furin processes the TGF-β1 precursor at the carboxyl side of the consensus sequence RHRR which precedes the NH2-terminal Ala 279 residue of the

Target Details

	mature TGF-β1. The TGF-β1 precursor includes the latency-associated peptide (LAP dimer) in the N-terminal portion and the 25 kD portion that constitutes the mature TGF-β1 in the C-terminal. LAP dimer and the TGF-β1 mature protein remain non-covalently associated after furin cleavage and this complex does not bind to the TFG-β1 receptor. In addition, the TGF-β1 latent complex is joined covalently through LAP to LTBP. The TGF-β1 active form requires dissociation from LAP. Some activators can release TGF-β1 from LAP such as thrombospondin-1, reactive oxygen species, and the integrins avb6 and avb8. Mouse TGF-β1 converts naive T cells into regulatory T (Treg) cells that prevent autoimmunity. Although human TGF- β1 is widely used for inducing FOXP3+ in vitro, it might not be an essential factor for human Treg differentiation. Th17 murine can be induced from naive CD4+ T cells by the combination of TGF-β1 and IL-6 or IL-21. Nevertheless, the regulation of human Th17 differentiation is distinct. TGF-β1 seems to have dual effects on human Th17 differentiation in a dose-dependent manner. While TGF-β1 is required for the expression of RORgt, in human naive CD4+ T cells from cord blood, TGF-β1 can inhibit the function of RORgt at high doses. By using serum-free medium, it has been clarified that the optimum conditions for human Th17 differentiation are TGF-β1, IL-1b, and IL-2 in combination with IL-6, IL-21, or IL-23.
Pathways:	EGFR Signaling Pathway, Dopaminergic Neurogenesis, Cellular Response to Molecule of Bacterial Origin, Glycosaminoglycan Metabolic Process, Regulation of Leukocyte Mediated Immunity, Regulation of Muscle Cell Differentiation, Positive Regulation of Immune Effector Process, Cell-Cell Junction Organization, Production of Molecular Mediator of Immune Response, Ribonucleoside Biosynthetic Process, Skeletal Muscle Fiber Development, Regulation of Carbohydrate Metabolic Process, Protein targeting to Nucleus, Autophagy, Cancer Immune Checkpoints

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Concentration:	0.5 mg/mL
Buffer:	Phosphate-buffered solution, pH 7.2, containing 0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

Handling

	should be handled by trained staff only.
Handling Advice:	Do not freeze.
Storage:	4 °C
Storage Comment:	The antibody solution should be stored undiluted between 2°C and 8°C.

Images

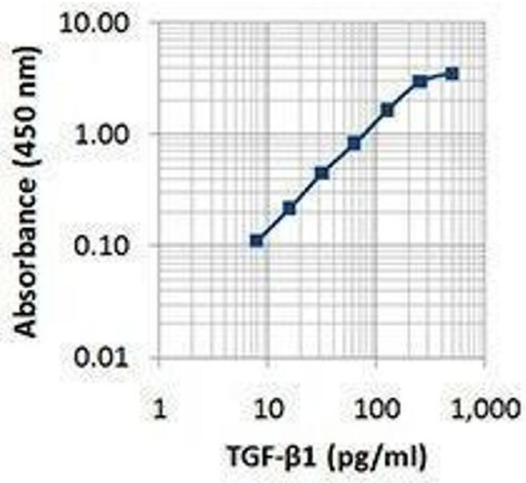

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Image 1.