

Infliximab

Cat. No.:	HY-P9970
CAS No.:	170277-31-3
Target:	TNF Receptor; Bacterial
Pathway:	Apoptosis; Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Infliximab (Avakine) is a chimeric monoclonal IgG1 antibody that specifically binds to TNF- α . Infliximab prevents the interaction of TNF- α with TNF- α receptor (TNFR1 and TNFR2). Infliximab has the potential for autoimmune, chronic inflammatory diseases and diabetic neuropathy research ^{[1][2]} .
In Vitro	TNF- α -treated adipocytes shows a significant 64% decrease in insulin-stimulated glucose uptake, whereas Infliximab (10 ng/mL) reverses TNF- α actions by significantly improving glucose incorporation in 3T3L1 adipocytes. Infliximab restores phosphorylation of substrate-2 and AKT by attenuating protein-tyrosine phosphatase 1B (PTP1B) activation. Infliximab ameliorates TNF- α -induced insulin resistance in 3T3L1 adipocytes in vitro by restoring the insulin signalling pathway via PTP1B inhibition ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	A single injection of Infliximab (10 μ g/g in 100 μ l saline/dose ip) in diabetic TNF- α ^{+/+} mice leads to suppression of the increased serum TNF- α and amelioration of the electrophysiological and biochemical deficits for at least 4 weeks. The increased TNF- α mRNA expression in diabetic dorsal root ganglion is also attenuated by Infliximab ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- NPJ Regen Med. 2023 May 2;8(1):23.
- Int Immunopharmacol. 2023 May.
- Mol Pharm. 2022 Aug 29.
- World J Stem Cells. 2022; 14(11): 798-814.

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REFERENCES

[1]. Lucia A Méndez-García, et al. Infliximab ameliorates tumor necrosis factor-alpha-induced insulin resistance by attenuating PTP1B activation in 3T3L1 adipocytes in vitro. Scand J Immunol. 2018 Nov;88(5):e12716.

Caution: Product has not been fully validated for medical applications. For research use only.

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