



DNA Aptamer against TNF-alpha

SKU# APT-016: DNA Aptamer against TNF-alpha

Background

Tumor necrosis factor (TNF, or TNF α), is 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/TNFR. 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 psoriasis, rheumatoid arthritis ankylosing spondylitis, tuberculosis, autosomal dominant polycystic kidney disease, and cancer. Mutations in this gene affect susceptibility to cerebral malaria, septic shock, and Alzheimer disease. Knockout studies in mice also suggested the neuroprotective function of this cytokine.

Aptamer type: DNA aptamer

Aptamer length: 81 bp

Affinity KD: 0.19 nM

Kit contents

The following components are included in the Kit.

	Component	Quantity
APT-016-10	Single strand DNA, lyophilized powder	10 nmol
APT-016-30	Single strand DNA, lyophilized powder	30 nmol

- Store at -20°; reagents are guaranteed stable for 12 months when properly stored.

References

Wang, J., et al., Multiparameter Particle Display (MPPD): A Quantitative Screening Method for the Discovery of Highly Specific Aptamers. *Angew Chem Int Ed Engl.* 2017.