

Rat TNF alpha ELISA Kit ab108913

7 References 1 Image

Overview

Product name	Rat TNF alpha ELISA Kit				
Detection method	Colorimetric				
Precision	Intra-assay				
	Sample	n	Mean	SD	CV%
	Overall				5.9%
	Inter-assay				
	Sample	n	Mean	SD	CV%
	Overall				10.2%
Sample type	Cell culture supernatant				
Assay type	Sandwich (quantitative)				
Sensitivity	= 0.0082 ng/ml				
Range	0.016 ng/ml - 1 ng/ml				
Assay time	4h 30m				
Assay duration	Multiple steps standard assay				
Species reactivity	Reacts with: Rat				
Product overview	Abcam's TNF alpha Rat <i>in vitro</i> ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of TNF alpha in rat cell culture supernatants.				

A TNF alpha specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently a TNF alpha X specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Conjugate is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize Streptavidin-Peroxidase enzymatic reaction. TMB is catalyzed by Streptavidin-Peroxidase to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the amount of TNF alpha captured in plate.

The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid

repeated freeze-thaw cycles.

Platform Microplate

Properties

Storage instructions Please refer to protocols.

Components	1 x 96 tests
100X Streptavidin-Peroxidase Conjugate	1 x 80µl
10X Diluent N Concentrate	1 x 30ml
1X Standard Diluent	1 x 2ml
20X Wash Buffer Concentrate	2 x 30ml
50X Biotinylated Rat TNF alpha Antibody	1 x 120µl
Chromogen Substrate	1 x 8ml
Sealing Tapes	3 units
Stop Solution	1 x 12ml
TNF alpha Microplate (12 x 8 well strips)	1 unit
TNF alpha Standard	1 vial

Function Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin-1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.

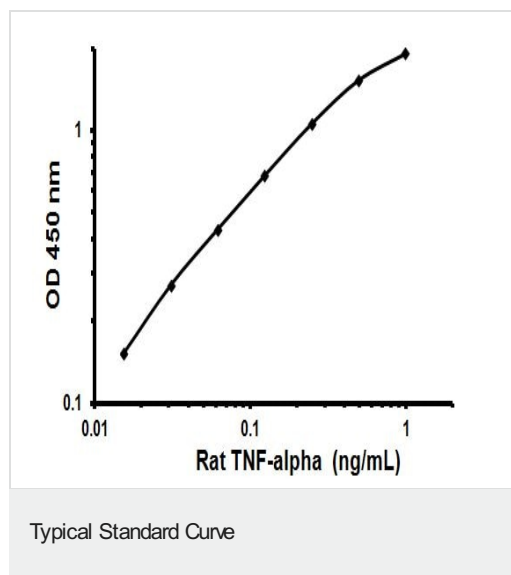
Involvement in disease Genetic variations in TNF are a cause of susceptibility psoriatic arthritis (PSORAS) [MIM:607507]. PSORAS is an inflammatory, seronegative arthritis associated with psoriasis. It is a heterogeneous disorder ranging from a mild, non-destructive disease to a severe, progressive, erosive arthropathy. Five types of psoriatic arthritis have been defined: asymmetrical oligoarthritis characterized by primary involvement of the small joints of the fingers or toes; asymmetrical arthritis which involves the joints of the extremities; symmetrical polyarthritis characterized by a rheumatoidlike pattern that can involve hands, wrists, ankles, and feet; arthritis mutilans, which is a rare but deforming and destructive condition; arthritis of the sacroiliac joints and spine (psoriatic spondylitis).

Sequence similarities Belongs to the tumor necrosis factor family.

Post-translational modifications The soluble form derives from the membrane form by proteolytic processing. The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1. O-glycosylated; glycans contain galactose, N-acetylgalactosamine and N-acetylneuraminic acid.

Cellular localization Secreted and Cell membrane.

Images



Representative Standard Curve using ab108913.

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