# abcam

## Product datasheet

## Canine TNF alpha ELISA Kit ab193687

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Overview

**Precision** 

Product name Canine TNF alpha ELISA Kit

**Detection method**Colorimetric

| Sample  | n | Mean | SD | CV%   |
|---------|---|------|----|-------|
| Overall |   |      |    | < 10% |

Inter-assay

Intra-assav

| Sample  | n | Mean | SD | CV%   |
|---------|---|------|----|-------|
| Overall |   |      |    | < 12% |

Sample type Cell culture supernatant, Serum, Plasma

Assay type Sandwich (quantitative)

Sensitivity 2 pg/ml

**Range** 2 pg/ml - 700 pg/ml

Recovery Sample specific recovery

| Sample type        | Average % | Range       |
|--------------------|-----------|-------------|
| Serum              | 101.1     | 93% - 109%  |
| Plasma             | 97.84     | 91% - 104%  |
| Cell culture media | 118.4     | 110% - 126% |

Assay duration Multiple steps standard assay

Species reactivity Reacts with: Dog

Product overview Abcam's TNF alpha Canine ELISA Kit (ab193687) is an in vitro enzyme-linked immunosorbent

assay for the quantitative measurement of canine TNF alpha in serum, plasma and cell culture

supernatant.

This assay employs an antibody specific for canine TNF alpha coated on a 96-well plate. Standards and samples are pipetted into the wells and the immobilized antibody captures TNF

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alpha present in the samples. The wells are washed and biotinylated anti-canine TNF alpha antibody is added. After washing away any unbound biotinylated antibody, an HRP-conjugated streptavidin is pipetted to the wells. After incubation, the wells are again washed, followed by the addition of a TMB substrate solution to the wells. Color will develop in proportion to the amount of TNF alpha bound in each well. Addition of the Stop Solution will change the color from blue to yellow, and the intensity of the color is measured at 450 nm.

**Platform** 

Pre-coated microplate (12 x 8 well strips)

#### **Properties**

## Storage instructions

Store at -20°C. Please refer to protocols.

| Components   | 1 x 96 tests |
|--|--------------|
| 20X Wash Buffer  | 1 x 25ml     |
| 350X HRP-Streptavidin Concentrate                            | 1 x 200µl    |
| 5X Assay Diluent B   | 1 x 15ml     |
| Assay Diluent A  | 1 x 30ml     |
| Biotinylated Canine TNF-alpha detection antibody             | 2 vials      |
| Canine TNF-alpha Standards (lyophilized)                     | 2 vials      |
| Pre coated canine TNF-alpha Microplate (12 strips x 8 wells) | 1 unit       |
| Stop Solution  | 1 x 8ml      |
| TMB One-Step Substrate Reagent                               | 1 x 12ml     |

#### **Function**

Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. 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.

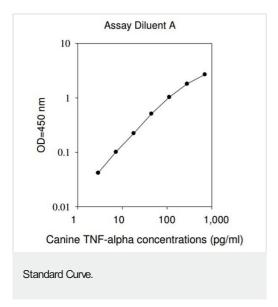
## Post-translational modifications

The soluble form derives from the membrane form by proteolytic processing.

The membrane form, but not the soluble form, is phosphorylated on serine residues.

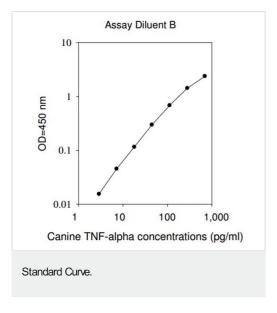
Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1.

#### **Images**



Standard Curve in Assay Diluent A using ab193687 TNF alpha Canine ELISA Kit.

Data provided for demonstration purposes only. A new standard curve must be generated for each assay performed.



Standard Curve in Assay Diluent B using ab193687 TNF alpha Canine ELISA Kit.

Data provided for demonstration purposes only. A new standard curve must be generated for each assay performed.

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