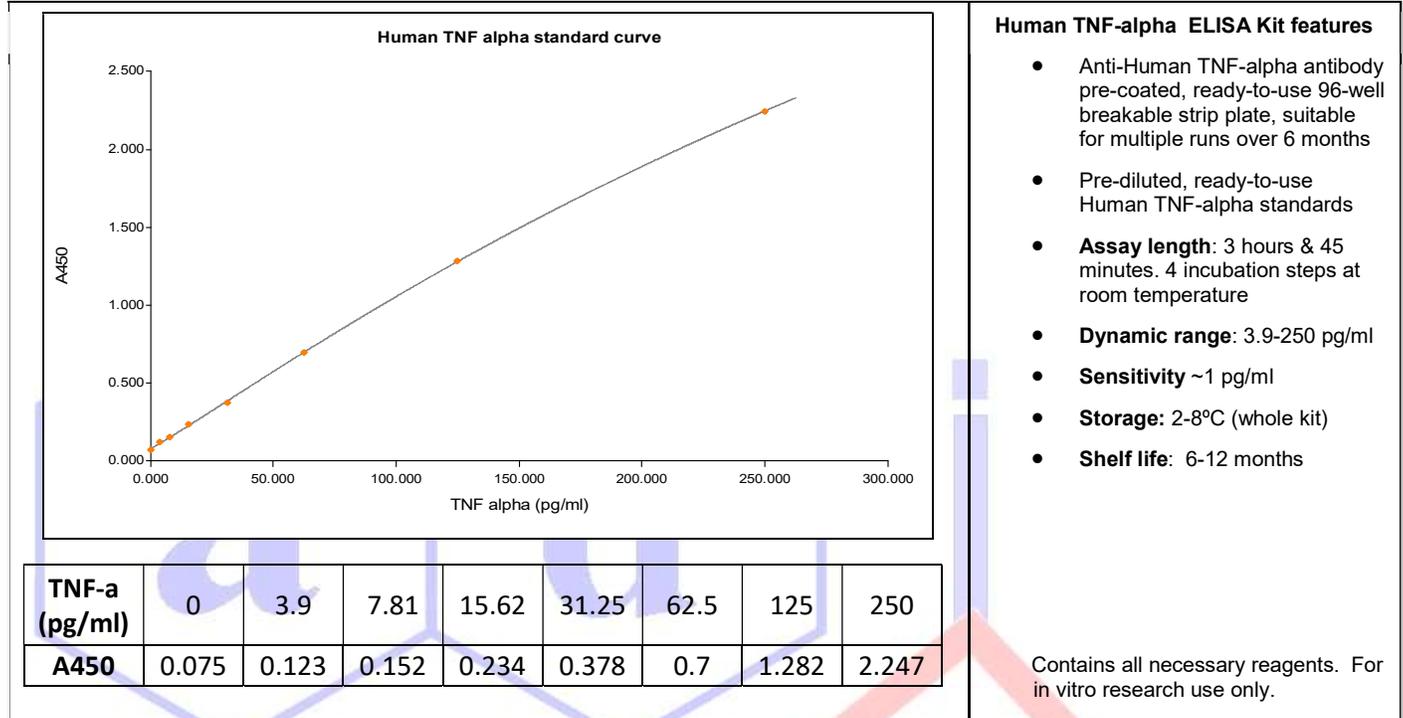


Human TNF alpha ELISA Kit Cat# 100-215-TNH

The Human TNF-alpha ELISA Kit is a highly sensitive sandwich ELISA for the measurement of Human TNF-alpha in serum, plasma, culture supernatant, tissue homogenates, or other appropriately qualified matrices.



Assay Procedure: Allow all reagents to reach room temperature. Arrange and label required number of strips.

- Step 1.** Pipette 100 ul of appropriately diluted samples and calibrators into wells and incubate for 2 hours at room temperature.
- Step 2.** Wash the wells 3X with 300 ul of wash buffer for each well
- Step 3.** Add 100 ul of biotin conjugated detection antibody to each well and incubate for 1 hour at room temperature
- Step 4.** Wash the wells 3X with 300 ul of wash buffer for each well
- Step 5.** Add 100 ul Streptavidin-HRP detection reagent to each well and incubate for 30 minutes at room temperature
- Step 6.** Wash the wells 3X with 300 ul of wash buffer for each well
- Step 7.** Add 100 ul of TMB Substrate solution to all wells, mix gently, and incubate at room temperature for 15 minutes.
- Step 8.** Pipette 100 ul of stop solution into each well and mix gently. Measure at 450 nm w/ 630 nm as a reference filter if available.

Performance Characteristics

Sensitivity: ~1 pg/ml
Average recovery: 100 ±15%
Average linearity: 100 ±15%
Precision: Intra-assay: <10% Inter-assay: <10%

Minimum recommended dilution:

Serum & Plasma: 2-fold
Culture medium: 2-fold

Note: Minimum recommended dilution represents the dilution which is needed to eliminate matrix interference effects. All samples must be diluted to at least the minimum recommended ratio. Samples may be further diluted if the sample values fall within the standard curve, if sample volume is to be preserved, or if the sample value is above the highest OD on the standard curve

General Information

Tumor Necrosis Factor, or TNF alpha, is a key inflammatory cytokine and the prototype of a large family of secreted and membrane-bound cytokines that regulate both innate and adaptive immune responses and developmental events. TNFα is a homotrimer and is cleaved from the membrane to release a soluble regulator that acts locally but can have systemic effects. TNFα acts in concert with the superfamily of TNF-receptors to promote and/or inhibit inflammation, both early when it is produced by innate immune cells including macrophages, and later, when it is produced by T lymphocytes. Thus, TNFα is involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation, and has been implicated in a variety of diseases, including autoimmune diseases, insulin resistance, and cancer.