
Lab Dept: Chemistry

Test Name: TUMOR NECROSIS FACTOR, ALPHA, HIGHLY SENSITIVE

General Information

Lab Order Codes: TNF

Synonyms: Tumor Necrosis Factor Alpha

CPT Codes: 83520 - Immunoassay, analyte, quantitative; not otherwise specified

Test Includes: Tumor necrosis factor, concentration reported in pg/mL.

Logistics

Test Indications: Tumor necrosis factor (TNF- α , cachectin) was described based on the observation of hemorrhagic necrosis of tumors in animals and humans, as well as in patients with cachexia. It is produced by mononuclear phagocytes, lymphocytes, natural killer cells, and some human tumor cells. Its effects have been studied in many cell types, including polymorphonuclear leukocytes, B- and T-lymphocytes, vascular endothelial cells, fibroblasts, hematopoietic tissues, adipocytes, hepatocytes, and bone and cartilage cells.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Medical Laboratories (MML Test: TNFA)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 8 – 14 days, test performed on Thursday

Special Instructions: N/A

Specimen

Specimen Type: Blood

Container: Lavender (EDTA) tube

Draw Volume: 1.5.mL (Minimum: 0.9 mL) blood

Processed Volume:	0.5 mL (Minimum: 0.3 mL) plasma
Collection:	Routine blood collection, place specimen on wet ice after draw and send to laboratory as soon as possible.
Special Processing:	Lab Staff: Specimens must be processed within 30 minutes of collection. Centrifuge at 1500 g for 10 minutes and aliquot 0.5 mL (Minimum: 0.3 mL) plasma into screw-capped round bottom plastic vials. Store in freezer. Ship frozen. Forward promptly.
Patient Preparation:	None
Sample Rejection:	Mislabeled or unlabeled specimens; specimens other than EDTA

Interpretive

Reference Range: < or =2.8 pg/mL

Elevated concentrations of tumor necrosis factor (TNF)-alpha may indicate an ongoing inflammatory response, and could be consistent with a systemic infection, localized infection, or chronic inflammatory disease.

Critical Values: N/A

Limitations: Tumor necrosis factor (TNF)-alpha is a nonspecific marker associated with an inflammatory response, and is not diagnostic for any specific disease or disease process. Elevated concentrations of TNF-alpha must be interpreted with the clinical context of the patient.

Normal concentrations of TNF-alpha do not exclude the possibility of an ongoing inflammatory process.

Methodology: Electrochemiluminescence

References: [Mayo Medical Laboratories](#) January 2019

Updates: 3/11/2004: Testing moved from Fairview Diagnostic Laboratories to Mayo Medical Laboratories forward to ARUP.
6/27/2007: Test moved to Forward to Quest from Mayo. Note new reference range and method.
12/20/2017: Updated reference range
1/14/2019: Testing previously performed at Quest, now performed at Mayo. Update method and reference range.