Lab Dept: Serology

Test Name: DIPHTHERIA AND TETANUS ANTIBODY

General Information

Lab Order Codes:	DPT
Synonyms:	Tetanus Antibody; Diphtheria Antibody
CPT Codes:	86317 x2 – Immunoassay for infectious agent antibody, quantitative, not otherwise specified
Test Includes:	Diphtheria and tetanus antibodies reported in IU/mL.

Logistics

Test Indications:	Evaluation of humoral immunity and as an aid in the evaluation of immunodeficiency.
Lab Testing Sections:	Serology - Sendouts
Referred to:	Mayo Medical Laboratories (Test: DTABS)
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours
Turnaround Time:	1 – 4 days, test set-up Monday - Friday
Special Instructions:	By testing pre and post-vaccination patient serum specimens, this test may be used to aid diagnosis of immunodeficiency.

Specimen

Specimen Type:	Blood
Container:	SST (Marble, gold or red top) tube
Draw Volume:	3 mL (Minimum: 2.4 mL) blood
Processed Volume:	1 mL (Minimum: 0.8 mL) serum
Collection:	Routine venipuncture

Special Processing:	Lab Staff: Centrifuge specimen and aliquot serum into a plastic tube. Store in refrigerator. Ship at refrigerated temperature. Forward promptly.
Patient Preparation:	None
Sample Rejection:	Specimens other than serum; hemolyzed specimens; warm specimens; lipemic specimens, mislabeled or unlabeled specimens

Interpretive

Reference Range:

Diptheria Toxoid IgG Antibody:

Interpretive criteria:
The minimum level of protective antibody in the normal population is between 0.01 and 0.1 IU/mL. The majority of vaccinated individuals should demonstrate protective levels of antibody >0.1 IU/mL.

Tetanus Toxoid IgG Antibody:

Interpretive criteria:
The minimum level of protective antibody in the normal population is between 0.01 and 0.15 IU/mL. The majority of vaccinated individuals should demonstrate protective levels of antibody >0.15 IU/mL.

Critical Values: N/A

Limitations:

This assay does not provide diagnostic proof of lack of protection against diphtheria and tetanus or the presence or absence of immunodeficiency. Results must be confirmed by clinical findings or other serological tests.

This test should not be used to diagnose tetanus infection. The diagnosis of tetanus is by clinical observation. A positive wound culture for the agent of tetanus, *Clostridium tetani*. may support, but does not confirm, the diagnosis. Toxin assays for teanospasmin may be useful, but are only available in a few laboratories.

Pre-vaccination and post-vaccination specimens should be run simultaneously.

Methodology: Enzyme Immunoassay (EIA)

References:

Mayo Medical Laboratories Web Page December 2017

Updates:

3/25/2004: Test moved from Fairview University Medical Center Diagnostic Laboratories to Mayo Medical Laboratories forward to Focus Technologies, Inc.
6/9/2004: Test no longer forwarded to Focus Technologies from Mayo. Mayo performs this test internally as of June 2, 2004. Please note change in draw volume from 3.0 mL to 1.5 mL. Method has changed from Enzyme-Linked Immunosorbent Assay (ELISA) to Enzyme Immunoassay (EIA). Change in reference ranges. Diphtheria is now ≥0.10 IU/mL and had been ≥0.01 IU/mL. Tetanus is now ≥0.16 IU/mL and had been ≥0.50 IU/mL.
8/24/2009: Draw volume and minimum volume increased. Previously listed as 1.5 mL blood and 0.2 mL serum, respectively.
4/4/2011: Minimum draw volume and process volume increased.
4/29/2011: Reference range information change.
1/28/2016: CPT update
8/3/2016: Tube type update to SST