

TEST: IMMUNODEFICIENCY PANEL

PRINCIPLE:

This test quantitates and analyzes cell surface markers of lymphocyte subsets and other cell populations using monoclonal antibodies. The two major types of lymphocytes are T lymphocytes responsible for cellular immunity and B lymphocytes responsible for humoral immunity. Monoclonal antibodies have been produced to identify each of these types or their subsets. These antibodies are conjugated with fluorochrome and then reacted with lymphocytes. The percentage of positively stained cells can be determined by flow cytometry. Results are reported as percentage of positive lymphocytes; absolute counts are reported for immunodeficiency profile.

SPECIMEN REQUIREMENTS:

10ml of whole blood collected in a green top tube with heparin. Make sure the blood is mixed well after it is drawn from the patient to prevent clots. Send blood at room temperature. **Do not refrigerate.** Deliver immediately to laboratory, within 24 hours. For specimens that will arrive to the lab 48 hours after collection, collect blood in tubes with the anti-coagulant ACD (yellow top tubes). If the patient has an abnormally low absolute lymphocyte count, collect a larger volume of blood 20-30ml of whole blood.

Make sure the blood is mixed well after it is drawn from the patient to prevent clots. Send blood at room temperature. **Do not refrigerate.** Deliver immediately to laboratory, within 24 hours.

Unacceptable specimens are those more than 3 days old or those that have clotted.

METHOD: Flow Cytometry

REFERENCES:

1. Lovett, E.J. et al: Application of flow Cytometry to Diagnostic Pathology. Lab. Invest. 50:115, 1984.
2. Lane, H.C. and A. Fauci. Immunologic Aspects of the Acquired Immunodeficiency Syndrome. Adv. Host Def. Mech. 5:131, 1985.

Normal Range: See lab report

Turnaround Time: 3 days

Panel

CD3/CD8

CD3/CD4

CD3/CD56

CD19