

NBT Reduction Test

Synonyms

Nitroblue tetrazolium reduction test

Clinical Indication

When Chronic granulomatous disease is suspected (CGD): history of recurrent or severe staphylococcal infections/abscesses or infections with other gram positive bacteria, invasive fungal infections (when other causes of immunodeficiency have been excluded), multiple granulomatous lesions.

It is essential to provide relevant clinical information.

It is essential to telephone the laboratory to arrange the test.

Part of Profile / See Also

Assay measures the phagocytic activity of polymorphonuclear leucocytes by the amount of colour change of NBT.

Request Form

Combined Pathology manual blood form or ICE request

Availability / Frequency of Analysis

Referred test: Analysed by *name of referral lab* if specific criteria met. Samples are sent to the referral laboratory immediately on receipt and tested the same day.

Turnaround Time

Assay performed as required.

Patient Preparation

No special preparation is required but a travel control is essential

Sample Requirements

Specimen Type

Plasma

Volume

4.5 ml

Container



Purple top (EDTA) tube



Paediatric Lavender top (EDTA) tube

Samples should be transported to the laboratory immediately.

Reference Range & Units

Assay is reported as a percentage of polymorphic leucocytes that contain blue dye particles. Patients with CGD will have very low or zero values, female carriers will have an intermediate level of expression.

Interferences

Interpretation & Clinical

Decision Value (if applicable)

References

Test code

Lab Handling

Aliquot and store at 4-8°C prior to testing and at -20°C or below for up to 1 month after receipt.