Neutrophil Oxidative Burst Assay (DHR)

ARUP LABORATORIES

Patient: [redacted]
DOB: [redacted] Age: 16 Gender: [redacted]
Patient Identifiers: [redacted]

Visit Number (FIN): [redacted]

Client: [redacted]

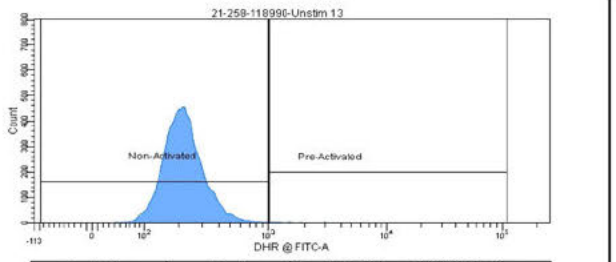
Physician: [redacted]

ARUP Test Code: 0096657

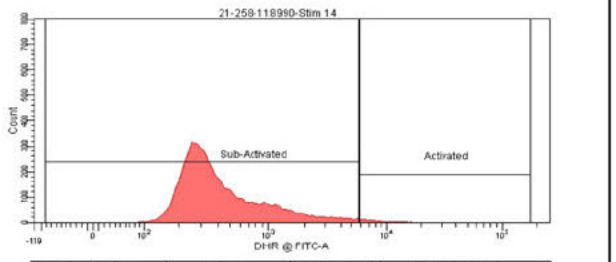
Collection Date: 09/15/2021
Received in lab: 09/16/2021
Completion Date: 09/17/2021

Patient: [redacted] **Sex:** F **Age:** [redacted]

Patient Sample



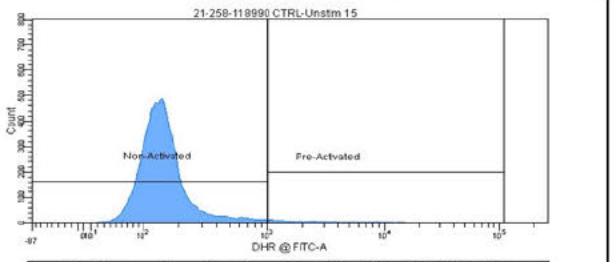
Populations	#Events	Population %	DHR PE-A Geo Mean
All Events	58389		87
Granulocytes - HBSS	10198	17.5	212
Non-Activated	10165	**99.7**	**212**
Pre-Activated	33	0.3	1492



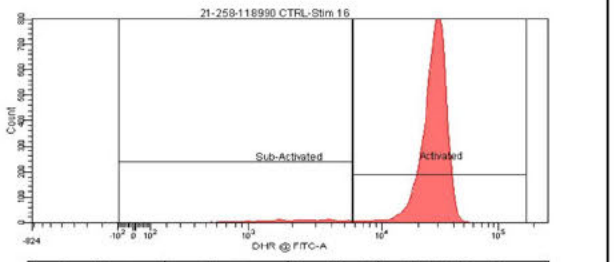
Populations	#Events	Population %	DHR PE-A Geo Mean
All Events	51110		123
Granulocytes - PMA	9917	19.4	346
Activated	129	**1.3**	**7566**
Sub-Activated	6782	98.6	342

Activated Granulocyte Fluorescence Stimulation Index: **36**
Sub-Activated Granulocyte Fluorescence Stimulation Index: **2**

Client-Submitted Control



Populations	#Events	Population %	DHR PE-A Geo Mean
All Events	30190		95
Granulocytes - HBSS	10940	36.2	144
Non-Activated	10562	**96.5**	**142**
Pre-Activated	377	3.4	2236



Populations	#Events	Population %	DHR PE-A Geo Mean
All Events	44039		717
Granulocytes - PMA	10825	24.6	27663
Activated	10402	**96.1**	**27917**
Sub-Activated	415	3.8	2221

Activated Granulocyte Fluorescence Stimulation Index: **197**
Sub-Activated Granulocyte Fluorescence Stimulation Index: **16**

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Jonathan R. Genzen, MD, PhD, Laboratory Director

Chart continues on following page(s)

Patient: [redacted] | **Date of Birth:** [redacted] | **Gender:** [redacted] | **Physician:** [redacted]
Patient Identifiers: [redacted] | **Visit Number (FIN):** [redacted]

Interpretation:

Broad peak of intermediate granulocyte dihydrorhodamine fluorescence without a normal population suggests autosomal recessive chronic granulomatous disease. Recommend repeat testing or molecular testing for confirmation.

This test requires the submission of a client control sample to determine whether abnormal results observed in the patient sample are due to artifacts of specimen collection, transport, and/or handling, or patient condition. Abnormal patient results in the absence of a client submitted control sample should be correlated clinically and interpreted with caution.

[redacted]
9-17-2021

Interpretive Information

INTERPRETIVE INFORMATION: Neutrophil Oxidative Burst Assay

White blood cells are incubated with dihydrorhodamine 123 (DHR) and catalase then stimulated with Phorbol 12-Myristate 13-Acetate (PMA). Dihydrorhodamine oxidation to rhodamine by the respiratory burst of the cell is measured by flow cytometry.

Results are reported as the ratio of the mean channel fluorescence of stimulated cells versus unstimulated cells, which yields a stimulation index (SI).

This test requires the submission of a client control sample to determine whether abnormal results observed in the patient sample are due to artifacts of specimen collection, transport, and/or handling, or patient condition. Abnormal patient results in the absence of a client submitted control sample should be correlated clinically and interpreted with caution.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.