

Specimen Collected: 17-Sep-20 11:35

Toll-Like Receptor Function | Received: 17-Sep-20 11:35 Report/Verified: 17-Sep-20 13:30

	Result	Units	Reference Interval
Toll-Like Receptor Function	See Note ^{f1 i1}		

Result Footnote

f1: Toll-Like Receptor Function
 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.

TNF-a (pg/ml)

	PATIENT	CLIENT CONTROL	LAB CONTROL
Media	2	4	1
PAM3CSK4	145	256	225
Zymosan	139	396	943
Flagellin	351	505	373
CLO97	774	1531	1869
LPS	629	1098	1141

IL-1b (pg/ml)

	PATIENT	CLIENT CONTROL	LAB CONTROL
Media	2	2	0
PAM3CSK4	80	204	143
Zymosan	222	427	1296
Flagellin	563	611	694
CLO97	873	1425	2092
LPS	995	1365	2201

IL-6

	PATIENT	CLIENT CONTROL	LAB CONTROL
Media	1	3	4
PAM3CSK4	2295	4367	5871
Zymosan	115	298	648
Flagellin	4068	6456	7294
CLO97	3149	5890	8218
LPS	5389	9093	>10240

Interpretation:

Decreased cytokine responses to TLR2-TLR6 (Zymosan) and normal responses to TLR2-TLR1, TLR5, TLR7-TLR8, and TLR4 stimulation compared to simultaneously run controls. Suggest repeat testing.

Julio C. Delgado M.D.
 9/17/2020

The following reagents stimulate corresponding TLR ligands:

PAM3CSK4: TLR2 and TLR1
 Zymosan: TLR2 and TLR6

*=Abnormal, #=Corrected, C=Critical, f=Result Footnote, H=High, i=Test Information, L=Low, t=Interpretive Text, @=Performing Lab

Unless otherwise indicated, testing performed at:

ARUP Laboratories

500 Chipeta Way, Salt Lake City, UT 84108

Laboratory Director: Tracy I. George, MD

ARUP Accession: 20-261-900098

Report Request ID: 13678615

Printed: 21-Sep-20 14:04

Result Footnote

f1: Toll-Like Receptor Function
Flagellin: TLR5
CL097: TLR7 and TLR8
LPS: TLR4

Test Information

i1: Toll-Like Receptor Function
INTERPRETIVE INFORMATION: Toll-Like Receptor Function

Toll-like receptors (TLR) are tested independently by stimulation with TLR-specific ligands in a peripheral blood mononuclear cell (PBMC) culture. PBMC production of IL-1 beta, IL-6, and TNF alpha is determined by multiplex bead assay for TLR 1,2,4-8.

TLR-specific ligands include Pam3CSK4, a synthetic bacterial lipoprotein (TLR2-TLR1 ligand); zymosan cell wall particles from Saccharomyces cerevisiae (TLR6-TLR2 ligand); lipopolysaccharide (LPS) ultra-pure S. minnesota LPS (TLR4 ligand); flagellin purified from S. typhimurium (TLR5 ligand); and CL097 imidazoquinoline compound (TLR7-TLR8 ligand).

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS

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