

TEST SUMMARY

Cytokine Release Syndrome Panel

Diagnosing Cytokine Release Syndrome (CRS) immediately is vital as it can rapidly escalate into a life-threatening condition. CRS results from an excessive immune response, often triggered by immunotherapies like chimeric antigen receptor T cell therapy (CAR-T), bone marrow transplant or infections, leading to a massive release of pro-inflammatory cytokines. The degree of elevation of markers often correlates with the severity of the clinical syndrome. For example, significant elevations in IL-6 support the diagnosis of CRS¹⁻³.

Design note: the tests included in this panel are based on the current (2024) recommendations from 25 physician key opinion leaders (KOLs) from (KOLs) from major academic medical centers from across the US (including: CHOP, UCSF, Stanford, Children's Alabama, Kaiser SF, Valley Children's, CHOC, Phoenix Children's, Cook Children's, UC Davis, Stanford Children's, University of Michigan Health, Johns Hopkins, Hershey MC, St. Jude, NIH, St. Louis Children's, Loma Linda Children's, UCSD, and UC Davis).

Please visit machaondiagnosics.com for more information.

References: 1. Bakos et al., Eculizumab suppresses zymosan-induced release of inflammatory cytokines IL-1 α , IL-1 β , IFN- γ and IL-2 in autologous serum-substituted PBMC cultures: Relevance to cytokine storm in Covid-19. Biomedicine & Pharmacotherapy (2023) 166. 2. Fajgenbaum and June, Cytokine Storm. NEJM (2020) 383:2255. 3. Li et al., Signaling pathways in the regulation of cytokine release syndrome in human diseases and intervention therapy. Signal Transduction and Targeted Therapy (2021) 6:367

SPECIMEN REQUIREMENTS

3 aliquots, 1mL (EDTA Plasma)

STABILITY

Frozen

CPT CODE

83520x10

83529

86160

METHODOLOGY

Automated ELISA

TURNAROUND TIMES

Routine TAT: <5 days (M-F)

STAT TAT: <24 hours (M-F)

TARGET LIST

CXCL9	IL-18
CXCL10	IFN-gamma
IL-1 beta	sIL-2RA
IL-4	TNF-alpha
IL-6	Fas ligand
IL-10	sC5b-9



WHY CHOOSE US?

- ✓ Fast turnaround time
- ✓ Clinical consultation
- ✓ Critical Results called to physician

ABOUT US:

Machaon Diagnostics is a clinical reference laboratory, specializing in coagulation, platelets, complement, genetics and rare disease.

