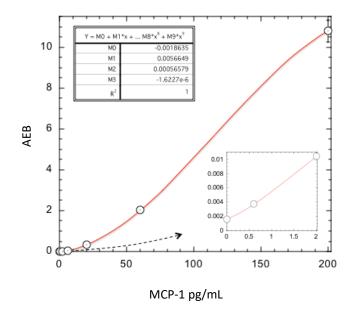
Simoa® MCP-1 Advantage Kit HD-1/HD-X Data Sheet Item 101154

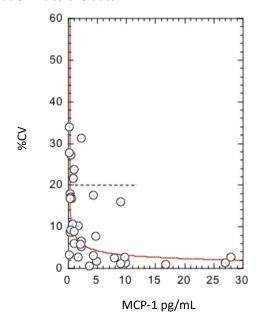
Description

Monocyte chemoattractant protein-1 (MCP-1) is a 13 kDa chemokine that regulates migration and infiltration of monocytes/macrophages. The idiopathic inflammatory including dermatomyositis myopathies, (DM), polymyosititis and inclusion body myositis, are a group of diseases characterized by chronic autoimmune lymphocytic and macrophagic infiltration in muscle. MCP-1 is believed to play a major role in the recruitment of these cells, especially in DM. Plasma levels of MCP-1 have also been shown to be increased in patients with high viral load compared with HIV-seropositive subjects with undetectable plasma viral RNA and healthy controls.

Calibration Curve: Cubic fit parameters are depicted.



Sample Dose CV Profile: Triplicate measurements of diluted serum samples assayed over multiple runs (33 measurements). LLOQ determined as the concentration at which %CV exceeds 20% according to the power equation fit to the data.



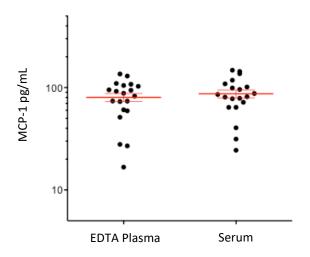
LLOQ	0.153 pg/mL
Dynamic range (serum and plasma)	0-800 pg/mL
Diluted Sample volume*	100 μL per measurement
Tests per kit	96

^{*}See Kit Instruction for details



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Endogenous Sample Reading: Healthy donor matched EDTA plasma (n=20) and serum (n=20) were measured. Error bars depict mean and SEM.



Sample Type	Sample Type Median MCP-1 pg/mL	
EDTA Plasma	85.3	
Serum	83.6	

Precision: Five samples consisting of two serum-based panels, one plasma-based panel, and two MCP-1 controls were assayed in replicates of three at two separate times per day for five days using a single stored calibration curve and a single lot of reagents. Analysis of variance (fully nested ANOVA) results are summarized in the following table.

Sample	Mean (pg/mL)	Within run CV	Between run CV	Between day CV
Control 1	57.7	3.3%	2.6%	0.0%
Control 2	335	3.5%	6.1%	0.0%
Panel 1	74.9	4.2%	4.0%	2.1%
Panel 2	83.5	2.9%	2.9%	4.9%
Panel 3	122	3.9%	4.6%	0.0%

Spike and Recovery: MCP-1 spiked into 4 serum and 4 plasma samples at 5 and 50 pg/mL.

Dilution Linearity: Plasma sample diluted 2x serially from MRD (4x) to 256x with Sample Diluent.

Spike and Recovery	Mean = 87.6%
(Serum/Plasma)	Range: 63.2–101%
Dilution Linearity	Mean = 112%
(256x)	Range: 97.5-125%