

# Resource Summary Report

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## ELISA for quantification of macrophage-colony stimulating factor (M-CSF) in human serum or plasma.

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### Proper Citation

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### Protocol Information

**URL:** <https://dx.doi.org/10.17504/protocols.io.bksskwee>

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**Summary:** Interleukins (IL) are a type of cytokine first thought to be expressed by leukocytes alone but have later been found to be produced by many other body cells. They play essential roles in the activation and differentiation of immune cells, as well as proliferation, maturation, migration, and adhesion. They also have pro-inflammatory and anti-inflammatory properties. The primary function of interleukins is, therefore, to modulate growth, differentiation, and activation during inflammatory and immune responses. Interleukins consist of a large group of proteins that can elicit many reactions in cells and tissues by binding to high-affinity receptors in cell surfaces. [1]The immunoregulatory cytokine IL-41 (also known as meteorin-like protein) is expressed at high levels in the synovium of patients with psoriatic arthritis (PsA).[2]Reference1. Justiz Vaillant AA, Qurie A. Interleukin. In:StatPearls. Treasure Island (FL): StatPearls Publishing; June 12, 2019.2.Onuora S. Novel cytokine, IL-41, linked with PsA.Nat Rev Rheumatol. 2019;15(11):636. doi:10.1038/s41584-019-0314-7

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