LL-37

Method:	Enzyme Immunoassay (ELISA)
Kit Manufacturer:	Hycult Biotech, the Netherlands
Description:	The human LL-37 ELISA is a ready-to-use solid-phase enzyme-linked immunosorbent assay Cathelicidins are a family of antimicrobial proteins predominantly found in the peroxidase-negative granules of neutrophils. Human cationic antimicrobial protein (hCAP)18 is the only human cathelicidin identified to date. The antibacterial C-terminus of hCAP-18, LL-37 (37 amino acids), has been shown to exert broad antimicrobial activity towards gram-negative as well as gram-positive bacteria and to have synergistic antibacterial effects with the defensins. For instance, deficiency in saliva LL-37 accords with occurrence of periodontal disease in patients with morbus Kostmann. Moreover, it functions as a chemotactic agent for neutrophils, monocytes and T cells. LL-37 is markedly resistant to proteolytic degradation and to a limited extent also cytotoxic towards mammalian cells. LL-37 was demonstrated to be present in plasma in levels from 25 – 250 ng/ml and to be enhanced in infectious diseases.

Collection and Performance Characteristics

Tube type:	Preferred: EDTA Plasma Alternate: SST
Minimum Volume:	0.5 mL
Special Processing Considerations	Keep freshly collected blood on ice. Within 20 minutes after blood sampling, separate plasma by centrifugation: 1500xg at 4°C for 15 min. Remove plasma and transfer to fresh polypropylene tube. Be careful to not disturb white cells in the buffy coat. Centrifuge the transferred plasma again in order to avoid any contamination with white blood cells: 1500xg at 4°C for 15 min. Freeze at -80°C Avoid multiple freeze-thaw cycles, do not use hemolyzed, hyperlipemic, heat-treated or contaminated samples.
Lowest Reportable Value:	0.1 ng/mL
Dynamic range:	0.1 – 100 ng/mL

Precision:	Intra-assay variation is 3.9 – 6.0% Inter-assay variation is 1.1-6.5%
Reference Range:	Unknown