Interleukin-19 (IL-19) is a novel cytokine that was initially identified during a sequence data base search aimed at finding potential Interleukin-10 homologs. Interleukin-19 shares 21% amino acid identity with IL-10. The exon/intron structure of IL-19 is similar to that of the human IL-10 gene, comprising five exons and four introns within the coding region of the IL-19 cDNA.

IL-19 shares a receptor complex with IL-20, indicating that the biological activities of these two cytokines overlap and that both may play an important role in regulating development and proper functioning of the skin. Unlike IL-10, which forms an intercalated dimer, the molecule of IL-19 is a monomer made of seven amphipathic helices, A-G, creating a unique helical bundle. Recombinant Human IL-19 produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 155 amino acids and having a molecular mass of 17913 Dalton.

**Physical Appearance:** sterile filtered white lyophilized (freeze-dried) powder.

**Source:** *E. coli*

**Formulation:**
Lyophilized from a concentrated (1mg/ml) solution in water containing 10 mM sodium citrate pH 5.

**Reconstitution:** It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

**Stability:** Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.

**Purity:** > 98 % as determined by RP-HPLC.
Reducing and non-reducing SDS-PAGE.

**Protein Content:** determined by UV spectroscopy at 280 nm.
Analysis by RP-HPLC calibrated against a known standard.
Quantitation on SDS-PAGE against a known standard.

**Biological Activity:** Recombinant Human Interleukin-19 is fully biologically active when compared to standard. The activity is determined by its ability to activate STAT following receptor-ligand interaction.

**Amino Acid Sequence:**
```
MLRRCLISTD MHHIEESPQE IKRAIQAKDT FHHVTILSL ETLLQIKPLD VCCYTKNLLA FYVDRVFKDH QEPNPKILRK
ISSIANSFLY MQKTLRQCQE QRQCHCRQEA TNATRIHDN YDQLEVHAAA IKSLGELDVF LAWINKNHEV MSSA
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**References**