

## Recombinant Human IL-19 (His, Strep)

### Information

Gene ID	29949
Accession #	Q9UHD0
Alternate Names	Human IL19; interleukin-19; IL19; IL-19; melanoma differentiation associated protein-like protein
Source	HEK293
Protein sequence	LRRCLISTDMHHIEESFQEIKRAIQAKDTFPNVTILSTLETQLIHKPLDVCCVTKNLLAFYVDRVFKDHQEPNP KILRKISSIANSFLYMQKTLRQCQEQRQCHCRQEATNATRVIHNDNYDQLEVHAAAIKSLGELDVFLAWINKN HEVMFSA
Tag	C-His, C-Strep
M.Wt	The protein has a calculated MW of 20.4 kDa.
Appearance	Solution protein
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 36 months from date of receipt, -20 to -70°C as supplied
Concentration	1 mg/mL
Formulation	Supplied as a 0.2 µm filtered solution in PBS, pH7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. This solution can be diluted into other aqueous buffers.
Biological Activity	Fully biologically active as determined by a cell proliferation assay using BaF3 mouse pro-B cells transfected with human IL-20 Rα and human IL-20 Rβ cells. The EC50 for this effect is 4.8 ng/mL.
Shipping Condition	Shipping with dry ice.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

### Quality Control

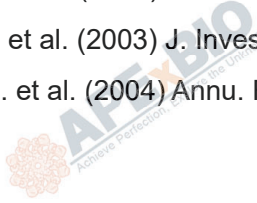
Purity	> 95 % by SDS-PAGE.
Endotoxin	Less than 1.0 EU/µg as determined by LAL method.

### Description

Interleukin-19 (IL-19) is a member of the IL-10 family of related cytokines. Its gene contains two alternate translation initiation sites, generating precursors of 215 amino acids (aa) and 177 aa, respectively. Both isoforms are processed to 17 kDa, 153 aa mature molecules. IL-19 contains seven helices and is secreted as a 35 kDa monomer. There are two potential N-linked glycosylation sites, and it is likely that the molecule is glycosylated. Mature human IL-19 shares 69% aa sequence identity with the mature mouse homologue. Although mouse IL-19 is active on human cells, human IL-19 is not active on mouse cells. IL-19 expression is limited to activated keratinocytes and monocytes. IL-19 binds a receptor complex consisting of the IL-20 receptor alpha (IL-20 R alpha, also known as IL-20 R1) and the IL-20 receptor beta (IL-20 R beta or IL-20 R2). This receptor complex is also shared by IL-20 and IL-24. Functionally, IL-19 induces IL-6 and TNF-alpha production by monocytes, and drives T-helper cell differentiation towards a Th2 response [1–5].

## Reference

- [1]. Gallagher, G. et al. (2000) Genes Immun. 1:442.
- [2]. Gallagher, G. et al. (2004) Int. Immunopharmacol. 4:615.
- [3]. Laio, Y-C. et al. (2002) J. Immunol. 169:4288.
- [4]. Romer, J. et al. (2003) J. Invest. Dermatol. 121:1306.
- [5]. Pestka, S. et al. (2004) Annu. Rev. Immunol. 22:929.



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