

Recombinant Mouse Interleukin-19 (Mouse IL-19)

Product Information

Product Name	Cat#	Size
	90153ES10	10 µg
Recombinant Mouse Interleukin-19 (Mouse IL-19)	90153ES60	100 µg
	90153ES76	500 µg

Product Description

Interleukin 19 (IL-19) is a member of the IL-10 family of cytokines. The IL-10 family is a class II alpha-helical collection of cytokines that contains two groups, a viral homolog and a cellular homolog group. Within the cellular homolog group, there are two additional groupings, one which uses IL-10 R2 as a signal transducing receptor (IL-10, IL-22 and IL-26), and one which uses IL-20 R2 as a signal transducing receptor (IL-19, IL-20 and IL-24). Mouse IL-19 is synthesized as a 176 amino acid (aa) precursor that contains a 24 aa signal sequence and a 152 aa mature region. Based on human studies, it is expected to be secreted as a glycosylated monomer, 35 - 45 kDa in size. IL-19 is unusual in that it contains seven amphipathic helices. Mature mouse IL-19 shares 69% aa sequence identity with the mature human IL-19, and 85% and 68% aa identity to unpublished Genbank sequences for rat and canine IL-19, respectively. 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, with a possible contribution from B cells. IL-19 binds a receptor complex consisting of the IL-20 receptor alpha (also known as IL-20 R1) and the IL-20 receptor beta (IL-20 R2). This receptor complex is also shared by IL-20 and IL-24. Notably, IL-19 is reported to actually bind to IL-20 R2, which is generally considered to be only the signal transducing receptor subunit. Functionally, it has been reported that IL-19 both will and will not induce IL-6 and TNF production by monocytes. It does, however, seem to drive T-helper cell differentiation towards a Th2 response, inducing both IL-10 and production of itself.

Product Properties

Synonyms	IL-10C; IL19; MDA1;
Accession	Q8CJ70
GeneID	329244
Source	E.coli-derived Mouse IL-19, Leu25-Ala176.
Molecular Weight	Approximately 17.6 kDa.
AA Sequence	LRRCLISVDM RLIEKSFHEI KRAMQTKDTF KNVTILSLEN LRSIKPGDVC CMTNNLLTFY RDRVFQDHQE RSLEVLRRIS SIANSFLCVQ KSLERCQVHR QCNCQSQEATN ATRIIHDNYN QLEVSSAALK SLGELNILLA WIDRNHLETP AA
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 97% by SDS-PAGE and HPLC analyses.
Biological Activity	The ED ₅₀ as determined by a cell proliferation assay using human IL-20Rα and human IL-20Rβ co-transfected murine BaF3 pro-B cells is less than 0.8 ng/mL, corresponding to a specific activity of > 1.25 × 10 ⁶ IU/mg. Fully biologically active when compared to standard.
Endotoxin	< 0.1 EU per 1µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4, with 3 % Trehalose.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!