



## User Manual

**Interleukin-20 (IL-20) (Human)**

**Cat. No. HEILP-20012**

**Description:**

Interleukin-20 (IL-20) is a member of the IL-10 family of regulatory cytokines which includes IL-10, IL-19, IL-20, IL-22, IL-24 and IL-26. Members of this family share partial homology in their amino acid sequences but they are dissimilar in their biological functions. IL-20 is a hematopoietic growth factor capable of stimulating colony formation by CD34+ multipotential progenitors, but not by other progenitor cells. IL-20 signals through a receptor system composed of type I IL-20R- $\alpha$  and type II IL-20R- $\beta$ . Over-expression of IL-20 in keratinocytes expressing both receptor subunits has been implicated in the induction of inflammatory skin disease.

**Source:**

*Escherichia coli*

**Unit:**

10  $\mu$ g

**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  $< -20^{\circ}\text{C}$ . Further dilutions should be made in appropriate buffered solutions.

**Formulation:**

Lyophilized from a 0.2  $\mu$ m filtered concentrated solution in PBS, pH 7.2, with trehalose.

**Storage:**

This lyophilized preparation is stable at 2-8 $^{\circ}\text{C}$ , but should be kept at -20 $^{\circ}\text{C}$  for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 $^{\circ}\text{C}$ . For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 $^{\circ}\text{C}$  to -70 $^{\circ}\text{C}$ . Avoid repeated freeze/thaw cycles.

**Molecular Weight:**

Approximately 17.6 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.

**Endotoxin:**

Less than 1 EU/μg of IL-20 as determined by LAL method.

**Usage:**

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAPEUTIC OR DIAGNOSTIC USE.

**Biological Activity:**

The ED50 determined by a cell proliferation assay using human IL-20R-α and human IL-20R-β co-transfected murine BaF3 pro-B cells is less than 0.6 ng/mL, corresponding to a specific activity of  $> 1.7 \times 10^6$  IU/mg.

**Physical Appearance:**

Sterile filtered white lyophilized (freeze-dried) powder.

**AA Sequence:**

MLKTLNLGSC VIATNLQEIR NGFSEIRGSV QAKDGNIDIR ILRRTESLQD TKPANRCCLL  
RHLLRLYLDR VFKNYQTPDH YTLRKISSLA NSFLTICKDL RLCHAHMTCH  
CGEAMKKYS QILSHFEKLE PQAAVVKALG ELDILLQWME ETE

**Purity:**

> 95% by SDS-PAGE and HPLC analyses.

Material Safety Data Sheets (MSDSs) are available upon request.

The Certificate of Analysis (COA), which provides detailed quality control information for each product, is also available at the Cyagen website.

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