

## Product Information

### SILu™Lite CXCL8, Interleukin-8, human recombinant, expressed in HEK 293 cells MS Protein Standard

Catalog Number **MSST0058**

Storage Temperature  $-20\text{ }^{\circ}\text{C}$

Synonyms: IL-8, C-X-C motif chemokine 8, Chemokine (C-X-C motif), ligand 8, Emotakin, Granulocyte chemotactic protein 1 (GCP-1), Monocyte-derived neutrophil, chemotactic factor (MDNCF), Monocyte-derived neutrophil-activating peptide (MONAP), Neutrophil-activating protein 1 (NAP-1), Protein 3-10C, T-cell chemotactic factor

#### Product Description

SILu™Lite CXCL8 is a recombinant human protein expressed in human 293 cells. It is a mixture of the 3 main CXCL8 isoforms with the molecular masses, number of amino acids, and relative abundance as described in Table 1. SILu™Lite CXCL8 is an analytical standard designed to be used as starting material for preparation of calibrators and controls in LC-MS applications.

**Table 1.**

Relative abundance of CXCL8 isoforms

Amino acids	Theoretical molecular mass (Da)	Length (amino acids)	Relative Abundance (%)
21-99	9108.6	79	12.6
23-99	8922.5	77	66.5
28-99	8385.7	72	20.9

Interleukin-8 (IL-8) is a member of the CXC chemokine subfamily<sup>1</sup> and is produced by blood cells and many types of tissues.<sup>2</sup> The measurement of IL-8 in voided urinary samples may have utility for urine-based detection of bladder cancer.<sup>3</sup> Urinary IL-8 was a strong biomarker of stress under intensive and prolonged demands, both acutely and over time.<sup>4</sup> IL-8 and cathepsin B levels were significantly elevated in melanoma patients, and more importantly, the combination of IL-8 and cathepsin B were also studied as a prognosis marker for melanoma mortality.<sup>5</sup>

Each vial contains 50  $\mu\text{g}$  of SILu™Lite CXCL8 standard, lyophilized from a solution of phosphate buffered saline. Vial content was determined by the Bradford method using BSA as a calibrator.

Purity:  $\geq 95\%$  (SDS-PAGE)

UniProt: P10145

Sequence Information: Amino acids 21-99

EGAVLPRSAKELRCQCIKTYSKPFHPKFIKELRVIESG  
PHCANTEIIVKLSGDRELCLDPKENWVQRVVEKFLKR  
AENS

#### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

#### Preparation Instructions

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile ultrapure water to a final concentration of 100  $\mu\text{g}/\text{mL}$ .

#### Storage/Stability

Store the lyophilized product at  $-20\text{ }^{\circ}\text{C}$ . The product is stable for at least 2 years as supplied.

After reconstitution, it is recommended to store the protein in working aliquots at  $-20\text{ }^{\circ}\text{C}$ .

**References**

1. Zhang, W., and Chen, H., The study on the interleukin-8 (IL-8). *Sheng Wu Yi Xue Gong Cheng Xue Za Zhi*, **19(4)**, 697-702 ( 2002).
2. Bickel, M., The role of interleukin-8 in inflammation and mechanisms of regulation. *J. Periodontol.*, **64(5 Suppl)**, 456-60 (1993).
3. Urquidi, V. et al., IL-8 as a urinary biomarker for the detection of bladder cancer. *BMC Urol.*, **12**, 12 (2012).
4. Dutheil, F. et al., Urinary Interleukin-8 Is a Biomarker of Stress in Emergency Physicians, Especially with Advancing Age — The JOBSTRESS\* Randomized Trial. *PLoS ONE*, **8(8)**, e71658 (2013).
5. Hongtao, Z. et al., IL8 and Cathepsin B as Melanoma Serum Biomarkers. *Int. J. Mol. Sci.*, **12**, 1505-1518 (2011).

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