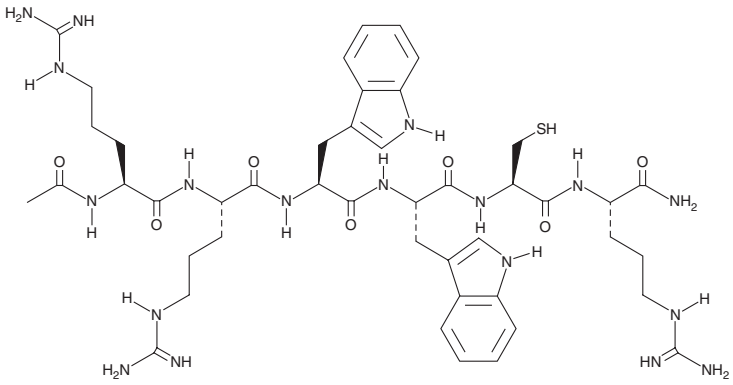
PRODUCT INFORMATION

Antileukinate

Item No. 17359



CAS Registry No.:	138559-60-1
Formal Name:	N^2-acetyl-L-arginyl-L-arginyl-L-tryptophyl-L-tryptophyl-L-cysteinyl-L-argininamide
MF:	$C_{45}H_{66}N_{18}O_7S$
FW:	1,003.2
Purity:	≥95%
UV/Vis.:	λ_{max}: 222, 282, 290 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Antileukinate is supplied as a crystalline solid. A stock solution may be made by dissolving the antileukinate in the solvent of choice, which should be purged with an inert gas. Antileukinate is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of antileukinate in these solvents is approximately 5 and 1 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of antileukinate can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of antileukinate in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Antileukinate is a synthetic hexapeptide with an acetylated amino terminus and an amidated carboxyl terminus that inhibits the binding of CXC chemokines to the chemokine receptor CXCR2.[1,2] It inhibits IL-8 binding to neutrophils (K_i = 2.7-13 µM), prevents neutrophil chemotaxis and β-glucuronidase release, and blocks IL-8-induced skin edema in rabbits.[3-5] At 53 mg/kg, antileukinate has been shown to protect mice against acute pancreatitis and associated lung injury.[2]

References

1. Fujisawa, N., Hayashi, S., Kurdowska, A., *et al*. Inhibition of GROα-induced human endothelial cell proliferation by the α-chemokine inhibitor antileukinate. *Cytokine* **11(3)**, 231-238 (1999).
2. Bhatia, M. and Hegde, A. Treatment with antileukinate, a CXCR2 chemokine receptor antagonist, protects mice against acute pancreatitis and associated lung injury. *Regul. Pept.* **138(1)**, 40-48 (2007).
3. Hirayama, S., Shiraishi, T., Shirakusa, T., *et al*. Prevention of neutrophil migration ameliorates rat lung allograft rejection. *Mol. Med.* **12(9-10)**, 208-213 (2006).
4. Hayashi, S., Kurdowska, A., Cohen, A.B., *et al*. A synthetic peptide inhibitor for α-chemokines inhibits the growth of melanoma cell lines. *J. Clin. Invest.* **99(11)**, 2581-2587 (1997).
5. Hayashi, S., Kurdowska, A., Miller, E.J., *et al*. Synthetic hexa- and heptapeptides that inhibit IL-8 from binding to and activating human blood neutrophils. *J. Immunol.* **154(2)**, 814-824 (1995).

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