

Raleukin

Information

Alternate Names	Anakinra, AMG-719		
Source	Escherichia coli.		
M.Wt	17257.6		
Cas No.	143090-92-0		
Appearance	Liquid		
Formula	$C_{759}H_{1186}N_{208}O_{232}S_{10}$		
Cell experiment	 Proliferation, migration, and invasion: After an IL-1β (10 ng/mL)stimulation period of 3h, administration of anakinra (1 μg/mL, 48 h) strongly diminished expression of these cytokines in GBM and PBMC. Anakinra Dampened IL-1β-Induced Inflammatory Gene Expression in both cell populations¹. ChIP assay: MEF cells were grown on 100 mm plates incubated with 10 μg/mL anakinr for 4 hours. Cells were then recovered in PBS 1× with MgCl₂ 1 mM, exposed to 1% formaldehyde at room temperature for 15 minutes to induce DNA crosslinking, washed, and then lysed with RIPA buffer containing 150 mM NaCl, 50 mM Tris pH 8.0, 1% Tritor X-100, 0.5% sodium deoxycholate, 0.1% PIC, and PMSF². 		
Animal experiment	C57BL6 WT mice were treated (i.p.) with 10 mg/kg anakinra reconstituted in sterile water daily for 6 consecutive days beginning the day of the infection ² .		
Target	IL-1		
Pathway	Immunology/Inflammation		
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied		
Shipping Condition	Dry ice		
Handling	Centrifuge the vial prior to opening.		
Usage	For Research Use Only! Not to be used in humans.		

Components and Storage

Components	1 mg	5 mg	10 mg	25 mg	50 mg
Raleukin	1 mg	5 mg	10 mg	25 mg	50 mg

Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 2 years from date of receipt, -20 to -70 °C as supplied

Quality Control

Purity	\ge 95 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 0.01 EU/µg as determined by LAL method.

Description

Raleukin (Anakinra/AMG-719), a recombinant, nonlysozymatized IL-1R antagonist, is the first-line agent for the treatment of hemophagocytic lymphohistiocytosis (HLH) and the first biologic agent to block pro-inflammatory effects.

Reference

- Hübner M, et al. The IL-1 Antagonist Anakinra Attenuates Glioblastoma Aggressiveness by Dampening Tumor-Associated Inflammation. Cancers (Basel). 2020 Feb 13;12(2):433.
- 2. Van de Veerdonk FL, et al. Anakinra restores cellular proteostasis by coupling mitochondrial redox balance to autophagy. J Clin Invest. 2022 Jan 18;132(2): e144983.

