Recombinant Chicken IL-21 (N-His)

Information

Gene ID	001024835.2
Accession #	NP_001020006.2
Alternate Names	Chicken IL-21, IL21, Interleukin-21
Source	E.coli
Protein sequence	MERMIIFCML FFCFSMVLTA TSPKAMKYKQ LSKTIDHLKD VVKDKDVELL HTPENPGDGC LLTAVTCFQN GILKLQPRNS QVNATFAKTV KILRRPFLPV SEEHCESSCE SYERKKPQEF LNSFSKLMQK LFKNSTAERY GKSTI
Tag	N-His
M.Wt	Approximately 18.9 kDa
Appearance	Solution protein.
Stability & Storage	Avoid repeated freeze-thaw cycles. It is recommended that the protein be aliquoted for optimal storage. -3 years from date of receipt, -20 to -70°C as supplied.
Concentration	5mg/mL
Formulation	Supplied as a 0.2 μm filtered solution in PBS, pH7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. This solution can be diluted into other aqueous buffers.
Biological Activity	Significantly upregulates IL-2, IL-4, IL-10, IL-17A, IFN-γ, and TGF-β1 mRNA levels; significantly upregulates IL-1β, IL-6, and TNF-α mRNA levels.
Shipping Condition	Shipping with dry ice.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Quality Control

Purity	> 90 % by SDS-PAGE.
Endotoxin	Less than 1.0 EU/mg as determined by LAL method.

Description

Chicken interleukin-21 (Gallus gallus Interleukin-21, Chicken IL-21) is a secreted cytokine with immunomodulatory activity, belonging to the IL-2 family (IL-15/IL-21 family) of four-helix bundle cytokines. Functionally, the main activities of chicken IL-21 come from experimental studies: Rothwell et al. (2012, Dev Comp Immunol) demonstrated that chicken IL-21 has a co-stimulatory effect on T cells, synergistically enhancing T cell proliferation and blocking dendritic cell maturation; Shi and Erf (2012, J Invest Dermatol) found in the Smyth line chicken spontaneous vitiligo model that IL-21 is co-expressed and elevated with IFN-γ and IL-10 in the early and active phases of lesions, suggesting that vitiligo is a Th1-polarized autoimmune disease and that IL-21 participates in its early active phase. In terms of application, chicken IL-21 has potential value as an avian immune adjuvant and vaccine enhancer, and its property of suppressing DC maturation warrants further exploration in avian immune tolerance and autoimmune research.

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