



Genorise[®] Recombinant Canine IL-14A Protein

Catalog Number: GR122140

Background

Interleukin-14 alpha (IL-14A), also known as alpha-taxilin (encoded by the TXLNA gene) [1], is a high-molecular-weight B-cell growth factor (HMW-BCGF) that promotes the proliferation of normal and cancerous B-cells [2]. It is involved in immune responses and is implicated in the pathogenesis of autoimmune diseases like SLE and Sjogren's syndrome. IL-14A induces B-cell proliferation, inhibits antibody secretion by inhibiting differentiation into antibody-secreting plasma cells, and expands selected B-cell subgroups. IL-14A is involved in Ca²⁺-dependent exocytosis in neuroendocrine cells [3]. This interleukin is produced mainly by T cells and certain malignant B cells. IL-14A has significant clinical value as a predictive biomarker and a key mediator in autoimmune disease pathogenesis. Serum levels of IL-14 α can serve as a biomarker to monitor responses to immunotherapy in patients with advanced solid cancers. IL-14 α is considered a putative biomarker for the stratification and diagnosis of Sjögren's disease (SjD) and related dry eye conditions. Patients with primary and secondary Sjögren's syndrome express significantly higher levels of IL-14 α in their peripheral blood compared to healthy individuals. Elevated levels are found in aggressive B-cell non-Hodgkin's lymphoma, Sjögren's syndrome, and Systemic Lupus Erythematosus (SLE). Early changes in serum IL-14 α levels (measured after two cycles of anti-PD-1 therapy like pembrolizumab) can predict patient survival and treatment response. While the precise nature of interleukin-14 remains under study, the alpha subunit has been identified as a critical factor in the development of B-cell-related disorders.

References

1. Nogami S, et al. (2004). *Biochem. Biophys. Res. Commun.* 319 (3): 936–43.
2. Ambrus JL, et al. (1993). *Proc. Natl. Acad. Sci. U.S.A.* 90 (13): 6330–4.
3. Nogami S, et al. (2003). *Genes Cells.* 8 (1): 17–28.

DECLARATION

THIS REAGENT IS FOR IN VITRO LABORATORY TESTING AND RESEARCH USE ONLY. DO NOT USE IT FOR CLINICAL DIAGNOSTICS. DO NOT USE OR INJECT IT IN HUMANS AND ANIMALS.

**FOR LABORATORY RESEARCH USE ONLY
NOT FOR USE IN HUMANS AND ANIMALS**



Genorise[®] Recombinant Canine IL-14A Protein

Catalog Number: GR122140

Description

Sources: Expressed in *E. coli*.

Composition: Ala61-Ser187

Accession #: A0A8C0TC02

Molecular weight: 14 kDa

Purity: > 95%, by SDS-PAGE under reducing conditions and visualized by silver staining.

Formulation: Lyophilized from a 0.2 µm filtered PBS solution containing BSA.

Reconstitution: Reconstitute at 50-500 µg/ml in sterile PBS with 0.1% BSA and store at -20°C ~ -70°C for up to 3 months.

Shipping and storage: The product is shipped at 4 °C with ice pad or at ambient temperature.

Upon receipt, store it immediately at -20°C to avoid loss of activity and use it in 6 months.

Related products

1. GR238016 50 ml Reagent Reservoir, 100/pack, 5 bags/pack (20/bag)
2. GR238004 Tissue Culture 96-well Microplate, individually packed, Case of 50
3. GR238019 1.5 ml Microcentrifuge tube with screw cap and free-standing, pack of 500
4. GR238007 125 ml leak-resistant HDPE bottle, colorless, pack of 24
5. GR238002 Microplate 12x8-Well Strip High Binding, Case of 50
6. GR238003 Microplate 12x8-Well Strip Medium Binding, Case of 50
7. GR238032 42592 Costar Stripwell Microplate 1 x 8 Flat Bottom, High Binding, Case of 100
8. GR238001 468667 Thermo Microplate 12x8-Well Strip Nunc Maxisorp F8, Case of 60
9. GR238031 96-well microplate sealer plastic, pack of 100