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Recombinant Mouse IL-4 Fc-Fusion Protein, N-terminal

Cat. No.: Pr00114-1.9

Product Summary

Description: Recombinant Mouse IL-4 Fc-Fusion Protein manufactured using [AbAb's Recombinant Platform](#)

Protein: Mouse IL-4

Fc domain: Mouse IgG1

Structure / Form: Disulfide-linked homodimer

Species: Mouse

Construct Design Note(s): Mouse IL-4 has been fused to the Fc domain of mouse IgG1.

Host: HEK293

UniProt Accession Number: P07750

Alternative Description: Interleukin-4, B-cell IgG differentiation factor, B-cell growth factor 1, B-cell stimulatory factor 1, BSF-1, IGG1 induction factor, Lymphocyte stimulatory factor 1.

Activity: IL-4 Induces the expression of class II MHC molecules on resting B-cells (PMID: 3498301). Enhances both secretion and cell surface expression of IgE and IgG1 (PMID: 3498301). It also showed the expression of the low-affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes (By similarity). It positively regulates IL31RA expression in macrophages and stimulates autophagy in dendritic cells by interfering with mTORC1 signaling and inducing RUFY4 (PMID: 26416964). In addition, it plays a critical role in higher brain functions, such as memory and learning (PMID: 25772794, PMID: 28202615). Upon binding to IL4, the IL4R receptor dimerizes either with the common IL2R gamma chain/IL2RG to produce the type 1 signaling complex, located mainly on hematopoietic cells, or with the IL13RA1 to produce the type 2 complex, which is also expressed on nonhematopoietic cells. Engagement of both types of receptors initiates JAK3 and, to a lower extent, JAK1 phosphorylation leading to activation of the signal transducer and activator of transcription 6/STAT6 (PMID: 8624821, PMID: 25847241). [UniProt]

Published Application(s): n/a.

Tested Applications(s): n/a.

Important note - This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals

Product Form

Purification: IMAC purified

Supplied in: PBS (with preservative (0.02% ProClin™ 300) for standard- or without for bulk-size products).

Endotoxin: <1.0 EU/mg

Shipping: The product is shipped with ice packs. Upon receipt, store it immediately at the temperature recommended.

Storage Recommendation: Short-term storage: 4°C for up to three months from the inspection date (as detailed in the CoA received with the shipment). Long-term storage: -20 to -80°C in appropriately sized aliquots to avoid repeated freeze-thaw cycles for up to three years from the inspection date.

Purity: >95%, as determined by SDS-PAGE and visualized by Coomassie Brilliant Blue.

Fc-Fusion Sequence (monomer):

HIHGCDKNHLREIIGILNEVTGEGTPCTEMDVPNVLATKNTTESELVCRASKVLRIFYLKHGKTPCLKKNSSVLMELQR
LFRAFRCLDSSISCTMNESKSTSLKDFLESLKSIMQMDYSGGGGSVPRDCGCKPCICTVPEVSSVFIFPPKPKDVLMI
LTPKVTCVVVDISKDDPEVQFSWFVDDVEVHTAQTKPREEQINSTFRSVSELPILHQDWLNGKEFKCRVNSAAFPAPIE
KTISKTKGRPKAPQVYTIPPPKEQMAKDKVSLTCMITNFFPEDITVEWQWNGQPAENYKNTQPIMDTDGSYFVYSKLN
VQKSNWEAGNTFTCSVLHEGLHNNHTEKSLSHSPGAHHHHHH

Underlined are the amino acid sequences of the G4S linker and 6xHis epitope tag, respectively.

Calculated Molecular weight (dimer): 80545.84 Da

Extinction coefficient: 74980 M⁻¹cm⁻¹ (calculated as described by Pace et al., 1995; PMID: 8563639)

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