

Recombinant Mouse I10R1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51651

Size: 10ug, 100ug

Protein Name: Interleukin-10 receptor subunit alpha (IL-10 receptor subunit alpha) (IL-10R subunit alpha) (IL-10RA) (CDw210a) (Interleukin-10 receptor subunit 1) (IL-10R subunit 1) (IL-10R1) (CD antigen CD210)

Synonym: Il10ra, Il10r

UniProt ID: Q61727

UniProt Link: www.uniprot.org/uniprotkb/Q61727/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 575 AA

Molecular Weight: 64 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MLSRLLPFLVTISSLSLEFIAYGTLPSPSYVWFEARFFQHILHWKPIPNQSESTYYEVALKQYGNST
WNDIHICRKAQALSCDLTTFTLDLYHRSYGYRARVRAVDNSQYSNWTTTETRTVDEVILTVDSVTLK
AMDGIYGTIHPPTITPAGDEYEQVFKDLRVYKISIRKFSELKNATKRVKQETFTLTVPVIGVRKFCVK
VLPRLESINKAEWSEEQCLLITTEQYFTVTNLSILVISMILLFCGILVCLVLQWYIRHPGKLPTVLVFKK
PHDFFPANPLCPETPDALHIVDLEVFVKVSLRLRDSVLHGSTDGFGSGKPSLQTEESQFLLPGSHPQ
IQGTGKEESPLQATCGDNTDSGICLQEPGLHSSMGPWKQQLGYTHQDQDDSDVNLVQNSPG
QPKYTQDASALGHVCLLEPKAPEEKDQVMVTFQGYQKQTRWKAEEAAGPAECLDEEIPLTDAFDPEL
GVHLQDDLAWPPPALAAGYLKQESQGMASAPPGTPSRQWNQLTEEWVLLGVVSCEDLSIESWRFA
HKLDPLDCGAAPGGLLDLGSNLVTLPLISSLQVEE

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Interleukin-10 receptor subunit alpha (IL-10 receptor subunit alpha) (IL-10R subunit alpha) (IL-10RA) (CDw210a) (Interleukin-10 receptor subunit 1) (IL-10R subunit 1) (IL-10R1) (CD antigen CD210) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Cell surface receptor for the cytokine IL10 that participates in IL10-mediated anti-inflammatory functions, limiting excessive tissue disruption caused by inflammation. Upon binding to IL10, induces a conformational change in IL10RB, allowing IL10RB to bind IL10 as well. In turn, the heterotetrameric assembly complex, composed of two subunits of IL10RA and IL10RB, activates the kinases JAK1 and TYK2 that are constitutively associated with IL10RA and IL10RB respectively. These kinases then phosphorylate specific tyrosine residues in the intracellular domain in IL10RA leading to the recruitment and subsequent phosphorylation of STAT3 (PubMed:8910398). Once phosphorylated, STAT3 homodimerizes, translocates to the nucleus and activates the expression of anti-inflammatory genes. In addition, IL10RA-mediated activation of STAT3 inhibits starvation-induced autophagy (By similarity).

Subcellular Localization: Cell membrane ; Single-pass type I membrane protein . Cytoplasm .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.