Recombinant Cynomolgus Monkey IL-10 Rα Fc Chimera

Catalog Number: 10186-RI

DESCRIPTION

Source

Human embryonic kidney cell, HEK293-derived cynomolgus monkey IL-10 R alpha protein

Cynomolgus Monkey IL-10 R alpha (His22-Asn235) Accession # XP_005579838.1	IEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis	His22
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	51 kDa

SPECIFICATIONS

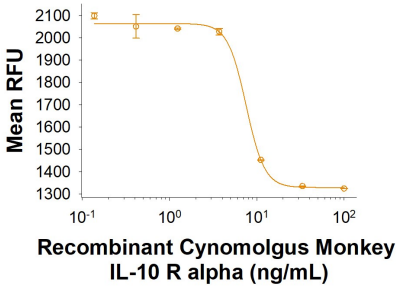
SDS-PAGE	70-80 kDa, under reducing conditions
Activity	Measured by its ability to inhibit IL-10-dependent proliferation of MC/9-2 mouse mast cells. Thompson-Snipes, L. *et al.* (1991) J. Exp. Med. **173**:507. The ED_{50} for this effect is 2-12 ng/mL in the presence of 2 ng/mL Recombinant Human IL-10 (Catalog # 217-IL).
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 200 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
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. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

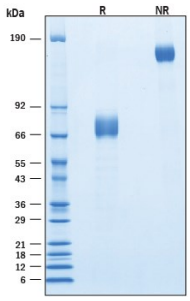
DATA

Inhibition Activity



Recombinant Cynomolgus Monkey IL-10 R alpha Fc Chimera (Catalog # 10186-RI) inhibits IL-10-dependent proliferation of MC/9-2 mouse mast cells. The ED_{50} for this effect is 2-12 ng/mL.

SDS-PAGE



2 µg/lane of Recombinant Cynomolgus Monkey IL-10 R alpha Fc Chimera was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® blue staining, showing bands at 70-80 kDa and 140-160 kDa, respectively.

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BACKGROUND

Interleukin-10 Receptor alpha (IL-10 R alpha), also known as IL-10 R1, is a 51 kDa transmembrane glycoprotein member of the class II cytokine receptor family (1). IL-10 R alpha is required for mediating the effects of IL-10, a critical molecule in the control of microbial infections, allergic and autoimmune inflammation, and cancer (2-5). IL-10 R alpha is the ligand specific subunit of the IL-10 receptor complex. Noncovalent dimers of IL-10 bind to IL-10 R alpha, resulting in the recruitment of IL-10 R beta (6-8). IL-10 R beta is a ubiquitously expressed transmembrane protein that does not bind IL-10 by itself but is required for signal transduction and in vivo IL-10 responsiveness (7, 9). IL-10 R beta also associates with IL-20 R alpha, IL-22 R alpha, or IL-28 R alpha to form the receptor complexes for IL-22, IL-26, IL-28, and IL-29 (1). Polymorphisms of human IL-10 R alpha may limit viral immune evasion by retaining full responsiveness to human IL-10 but responding weakly to the cytomegalovirus homolog of IL-10 (11). Mature IL-10 R alpha consists of a extracellular domain (ECD), a transmembrane segment, and a cytoplasmic domain (12). Within the ECD, cynomolgus monkey IL-10 R alpha shares 95%, 59% and 60% amino acid identity with Human, mouse, and rat IL-10 R alpha, respectively.

References:

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