

Recombinant Mouse IL-10 (His, Flag)

Information

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| Gene ID | 16153 |
| Accession # | P18893 |
| Alternate Names | CSIF |
| Source | HEK293 |
| Protein sequence | SRGQYSREDNNCTHFPVGGQSHMLLELRTAFSQVKTFQTKDQLDNILLTDSLMDQDFKGYLGCCQALSEMIQF YLVEVMPQAEKHGPEIKEHLNSLGEKLTLMRLRRCHRFLPCENKSKAVEQVKSDFNKLQDQGVYKAMN EFDIFINCIEAYMMIKMKS |
| Tag | N-His, N-Flag |
| M.Wt | The protein has a calculated MW of 18.7 KDa. |
| Appearance | Solution protein. |
| Stability & Storage | Avoid repeated freeze-thaw cycles. It is recommended that the protein be aliquoted for optimal storage. -2 years from date of receipt, -20 to -70 °C as supplied. |
| Concentration | 1 mg/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 | Fully biologically active as determined by a cell proliferation assay using MC/9 mouse mast cells. The EC50 for this effect is 0.06 -0.32 ng/mL. |
| 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

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| Purity | > 95 % by SDS-PAGE. |
| Endotoxin | Less than 1.0 EU/µg as determined by LAL method. |

Description

Interleukin 10, also known as cytokine synthesis inhibitor (CSIF), is a founding member of the IL-10 α helix cytokine family, which also includes IL-19, IL-20, IL-22, and IL-24. IL-10 is secreted by many activated hematopoietic cell types, as well as hepatic stellate cells, keratinocytes, and placental cytotrophoblast cells. Mature mouse IL-10 has 85% amino acid sequence homology with rats and 70%-77% homology with IL-10 from cattle, dogs, horses, cats, humans, sheep, and pigs. While human IL-10 is active on mouse cells, mouse IL-10 does not act on human cells. IL-10 is a 178-amino acid molecule containing two intrachain disulfide bonds expressed as a 36 kDa non-covalently bound homodimer. The IL-10 dimer binds to two IL-10R α /IL-10R1 chains, resulting in the recruitment of both IL-10R β /IL-10R2 chains and activating signaling cascades involving JAK1, TYK2, and STAT3. IL-10R β does not bind to IL-10 on its own, but it is required for signal transduction. IL-10R β also binds to IL-20R α , IL-22R α , or IL-28R α to form receptor complexes for IL-22, IL-26, IL-28, and IL-29. IL-10 is a key molecule in the control of viral infections, allergies, and autoimmune inflammation. It promotes phagocytic

uptake and Th2 responses, but inhibits antigen presentation and Th1 pro-inflammatory responses.



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