

Product Information

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| Description: | Recombinant human CD4, encompassing amino acids 26-396, corresponding to the extracellular domain. This construct includes an Fc-domain from human IgG1 fused at the C-terminus, followed by an Avi-tag™. This protein was affinity purified. |
| Background: | CD4 (cluster of differentiation 4) is part of the immunoglobulin superfamily and is found in T-helper cells, monocytes, macrophages, and dendritic cells. It is a co-receptor in the TCR (T cell receptor), binding to MHC (major histocompatibility complex) class II molecules. CD4 binds to the tyrosine kinase Lck (lymphocyte-specific protein tyrosine kinase), which phosphorylates the ITAM (immunoreceptor tyrosine activation motifs) domain of the CD3, activating CD3-related signaling. CD4 is a typical T cell marker of T helper cells. It has been linked to cancer, autoimmune diseases such as vitiligo, and type I diabetes. In addition, HIV-1 uses CD4 as a receptor to trigger viral envelope protein conformational changes that allow cell infection. Ibalizumab, an anti-CD4 antibody, is currently used in the treatment of HIV, being considered a first-in-class medication. Further studies into CD4 and potential strategies around it may benefit patients and CD4 related diseases. |
| Species: | Human |
| Construct: | CD4 (26-396-Fc(IgG1)-Avi) |
| Concentration: | 1.15 mg/ml |
| Expression System: | HEK293 |
| Purity: | ≥90% |
| Format: | Aqueous buffer solution. |
| Formulated In: | 8 mM phosphate, pH 7.4, 110 mM NaCl, 2.2 mM KCl, and 20% glycerol |
| MW: | 70 kDa + glycans |
| Glycosylation: | This protein runs at a higher MW by SDS-PAGE due to glycosylation. |
| Genbank Accession: | NM_000616.5 |
| Stability: | At least 6 months at -80°C. |
| Storage: | -80°C |
| Instructions for Use: | Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles. |
| Applications: | Useful for SDS-PAGE. |

Quality Control Data

4-20% SDS-PAGE Coomassie Staining

