

CD4 (rhesus macaque) Recombinant Protein

CATALOG NUMBER: IV-rhCD4-005P, 50 µg

Introduction

CD4 (cluster of differentiation 4) is a glycoprotein found on the surface of immune cells such as T helper cells, monocytes, macrophages, and dendritic cells. CD4+ T helper cells are white blood cells that are an essential part of the human immune system. The protein functions to initiate or augment the early phase of T-cell activation, and may function as an important mediator of indirect neuronal damage in infectious and immune-mediated diseases of the central nervous system.

HIV-1/SIV-1 uses CD4 to gain entry into host T-cells and achieves this through its viral envelope protein known as gp120. The binding to CD4 creates a shift in the conformation of gp120 allowing HIV-1 to bind to a co-receptor expressed on the host cell. These co-receptors are chemokine receptors CCR5 or CXCR4. Following a structural change in another viral protein (gp41), HIV inserts a fusion peptide into the host cell that allows the outer membrane of the virus to fuse with the cell membrane.

Applications

Western blot standard, antibody ELISA, HIV-1/SIV-1 entry inhibition, etc.

Description

Recombinant protein expressed and purified from 293 cells; C-terminal 6xHis tagged rhesus macaque CD4 protein (amino acid 1-398) (GenBank No. NP_001036127); the predicted mature protein starts at position 26.

Storage

Store at -20 °C; Stable for 6-months from the date of shipment when kept at 4 °C.

Concentration

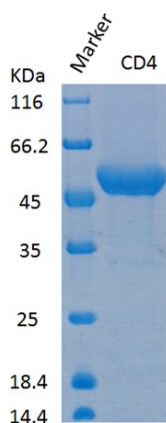
1 µg/µl in PBS with 0.1% sodium azide

Endotoxin Level

<0.01 EU per 1 µg of the protein by LAL test

Purity

≥ 95% purity (SDS PAGE)



SDS-PAGE: purified rhesus macaque CD4 protein

Recombinant CD4 (rhesus macaque) (aa 1-398) Protein Seq:

MNRGIPFRHLLLVQLALLPAVTQGGKVVVLGKKGDTVELTCTASQKKNTQFHWKNSNQIKILGIQGLFLTGKPSKLSDRADSRKSLWDQGCFSMIKKNL
KIEDSDTYICEVENKKEEVELLVFGLTANS DTHLLEGQSLTLTLESPPGSSPSVKCRSPGGKNIQGGRTISVPQLERQDSGTWTCTVSQDQKTVEFKID
IVVLAFAQASSTVYKKEGEQVEFSFPLAFTLEKLTGSGELWWQAERASSKSWITFDLKNKEVSVKRVTDPKLQMGKKLPLHLTLPQALPQYAGSGNL
TLALEAKTGKLGHEVNLVVMRATQFQENLTCEVWGPTSPKLTLSLKLKENGATVSKQAKAVVVLNPEAGMWQCLLSDSGQVLLLESNIKVVPTWPTPVQP
MAHHHHHH