

Human CD4 Recombinant Protein

CATALOG NUMBER: IV-CD4-005P, 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 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.

Application

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

Description

Human CD4 glycoprotein expressed and purified from 293 cells;
C-terminal 6xHis tagged human CD4 glycoprotein (amino acid 26-398) (GenBank No. P01730)

Storage

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

Concentration

1 mg/ml in PBS with less than 0.1% BSA and 25% glycerol

Purity

≥ 95% purity (SDS PAGE)



Human CD4 (aa 26-398) Seq:

KKVVLGKKGDTVELTCTASQKSIQFHWKNSNQIKILGNQGSFLTGKPSKLNDRADSRSLWDQGNFPLIIKNLKIEDSDTYICEVEDQKEEVQLLVFG
LTANS DTHLLQGQSLTLTLESPPGSSPSVQCRSPRGKNIQGGKTLVSQSLELQDSGTWTCTVLQNQKKVEFKIDIVVLAFQKASSIVYKKEGEQVEFSF
PLAFTVEKLTGSGELWWQAERASSKSWITFDLKNKEVSVKRVTDPKLQMGKKLPLHLTLPLQALPQYAGSGNLTALAEAKTGKLGHEVNLVVMRATQL
QKNLTCEVWGPTSPKMLMSLKLLENKEAKVSKREKAVVWLNPEAGMWQCLLSDSGQVLESNIKVLPTWSTPVPMAHHHHHH

