Human CD19/B4 protein，His Tag

Catalog # : **VLX 10003**

Basic Information

Gene Aliases:

B4, CVID3.

Protein Structure:

CD19 protein was consisted of extracellelar domain from Pro20 to Lys291 with a C-terminus polyhistidine tag.

Source: Human.

Expression Host: 293F Cells .

Predicted N-terminus:

Pro 20.

Mocular Weight:

The protein consists of 271 amino acids and software predictes a mocular weight was 34.0 KDa, the SDS-PAGE displays an 43-55 KDa band.

Purity:

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH 7.4. Normal mannitol or trehalose are added as protectants before lyophilization.

Reconstitution

You can add the volume of sterile water you need. We recommend add 50 μL sterile water to the concentration of 1 μg/μl if you order 50 μg Freeze-dried powder.

Storage

Lyophilized protein should keep drying and be stored at -20℃ for less than 6 months; Reconstituted protein was recommended to be stored at -70℃ for less than 12 months .
Please avoid repeated freeze-thaw cycles

Bioactivity

Measured by its binging ability with ELISA . CD19 antibody was expressed by the sequence of Novartis in HEK 293 cell.The CD19 protein can bind 4μg/ml antibody with a linear range of 0.025-1μg/ml

Background:

The membrane protein complex CD19/CD21 couples the innate immune recognition of microbial antigens by the complement system to the activation of B cells. CD21 binds the C3d fragment of activated C3 that becomes covalently attached to targets of complement activation, and CD19 co-stimulates signaling through the antigen receptor, membrane immunoglobulin. CD21 is also expressed by follicular dendritic cells and mediates the long-term retention of antigen that is required for the maintenance of memory B cells. Understanding of the biology of this receptor complex has been enriched by analyses of genetically modified mice; these analyses have uncovered roles not only in positive responses to foreign antigens, but also in the development of tolerance to self-antigens. Studies of signal transduction have begun to determine the basis for the coreceptor activities of CD19. The integration of innate and adaptive immune recognition at this molecular site on the B cell guides the appropriate selection of antigen by adaptive immunity and emphasizes the importance of this coreceptor complex.

References:

1.Fearon, Douglas T., Michael C. Carroll, and Michael C. Carroll. "Regulation of B lymphocyte responses to foreign and self-antigens by the CD19/CD21 complex." Annual review of immunology 18.1 (2000): 393-422.

SDS-PAGE: