

PRODUCT INFORMATION

Tag	C-Flag&Avi Tag
Target	CD19
Synonyms	B4; CVID3
Description	Biotinylated Human CD19 full length protein-synthetic nanodisc
Delivery	In Stock
Uniprot ID	P15391
Expression Host	HEK293
Protein Families	Transmembrane
Protein Pathways	B Cell Receptor Signaling Pathway
Molecular Weight	The human full length CD19 Protein has a MW of 65.9 kDa.
Formulation & Reconstitution	Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% - 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions. Do not use solvents with a pH below 6.5 or those containing high concentrations of divalent metal ions (greater than 5 mM) in subsequent experiments.
Storage&Shipping	Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.
Background	This gene encodes a member of the immunoglobulin gene superfamily. Expression of this cell surface protein is restricted to B cell lymphocytes. This protein is a reliable marker for pre-B cells but its expression diminishes during terminal B cell differentiation in antibody secreting plasma cells. The protein has two N-terminal extracellular Ig-like domains separated by a non-Ig-like domain, a hydrophobic transmembrane domain, and a large C-terminal cytoplasmic domain. This protein forms a complex with several membrane proteins including complement receptor type 2 (CD21) and tetraspanin (CD81) and this complex reduces the threshold for antigen-initiated B cell activation. Activation of this B-cell antigen receptor complex activates the phosphatidylinositol 3-kinase signalling pathway and the subsequent release of intracellular stores of calcium ions. This protein is a target of chimeric antigen receptor (CAR) T-cells used in the treatment of lymphoblastic leukemia. Mutations in this gene are associated with the disease common variable immunodeficiency 3 (CVID3) which results in a failure of B-cell differentiation and impaired secretion of immunoglobulins. CVID3 is characterized by hypogammaglobulinemia, an inability to mount an antibody response to antigen, and recurrent bacterial infections. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2020]
Usage	Research use only
Conjugate	Biotinylated



Biotinylated Human CD19 full length protein-synthetic nanodisc ELISA

0.2 µg of Biotinylated Human CD19-Nanodisc, Flag Tag per well

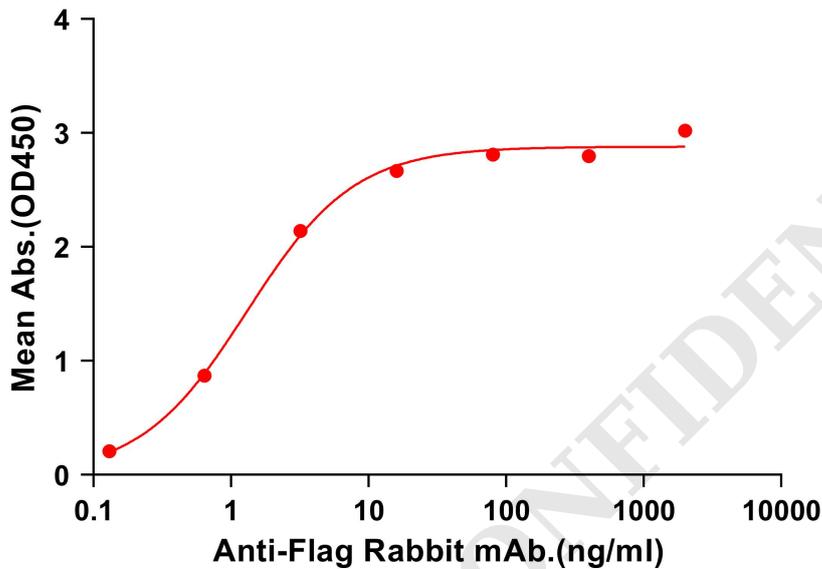


Figure 1. ELISA plate pre-coated by 2 µg/mL (100 µL/well) Biotinylated Human CD19 full length protein-synthetic nanodisc (FLP100499B) can bind Anti-Flag Rabbit mAb in a linear range of 0.13-16 ng/mL.

Biotinylated Human CD19 full length protein-synthetic nanodisc ELISA

0.1 µg of Streptavidin per well

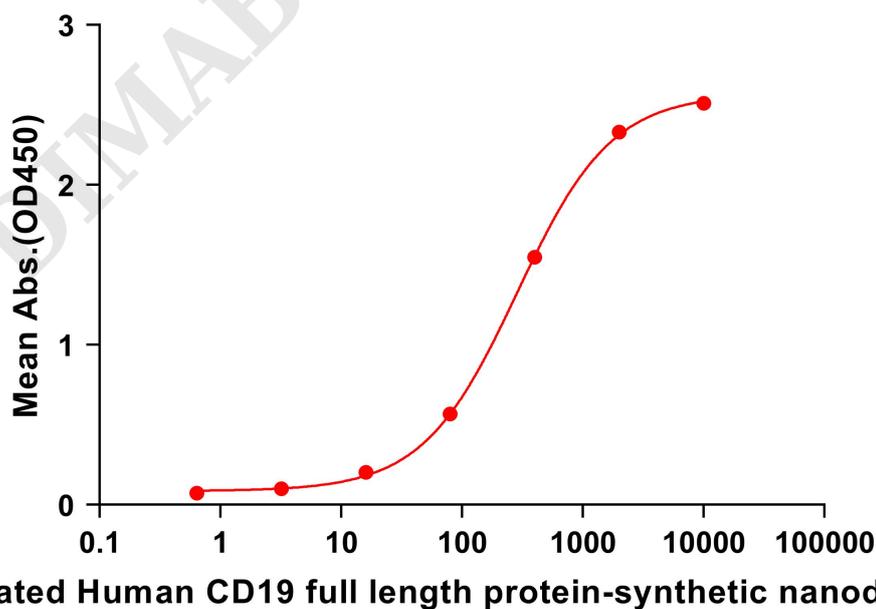
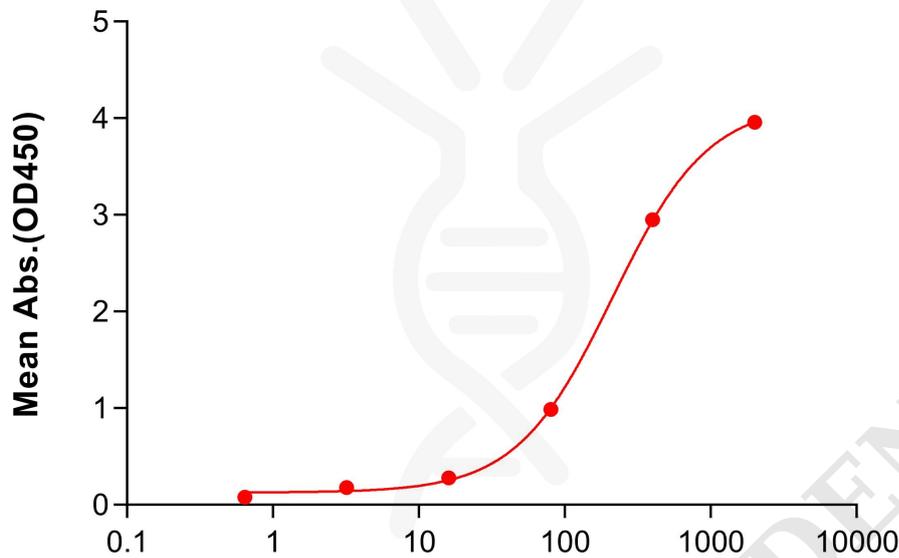


Figure 2. ELISA plate pre-coated by 1 µg/mL (100 µL/well) Streptavidin can bind Biotinylated Human CD19 full length protein-synthetic nanodisc (FLP100499B) in a linear range of 80-2000 ng/mL. In order to specifically detect FLP100499B, Anti-Flag Rabbit antibody was used as detection antibody.



Biotinylated Human CD19 full length protein-synthetic nanodisc ELISA

0.2 μ g of Anti-Flag Rabbit mAb per well



Biotinylated Human CD19 full length protein-synthetic nanodisc.(ng/ml)

Figure 3. ELISA plate pre-coated by 2 μ g/mL (100 μ L/well) Anti-flag Rabbit mAb can bind Biotinylated Human CD19 full length protein-synthetic nanodisc (FLP100499B) in a linear range of 80-2000 ng/mL. In order to specifically detect FLP100499B, HRP Conjugated Streptavidin was used as detection antibody.

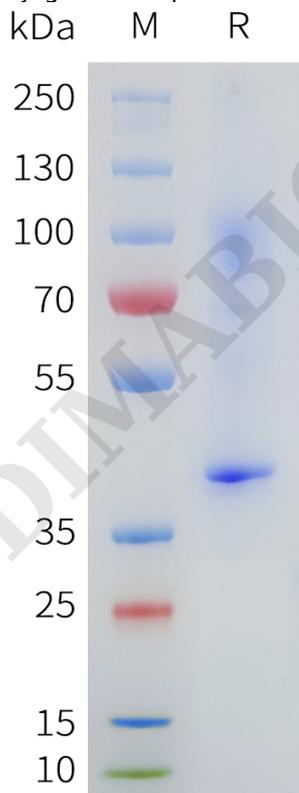


Figure 4. Biotinylated Human CD19-Nanodisc, Flag Tag on SDS-PAGE

