

Human UltraPro Mutant CD19 Protein

Cat. No. CD1-HM129

Description

Source	Recombinant Human UltraPro Mutant CD19 Protein is expressed from HEK293 with His tag at the C-terminus. It contains Pro20-Pro278 with site mutations.
Accession	P15391-1
Molecular Weight	The protein has a predicted MW of 29.93 kDa. Due to glycosylation, the protein migrates to 45-60 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 0.1 EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

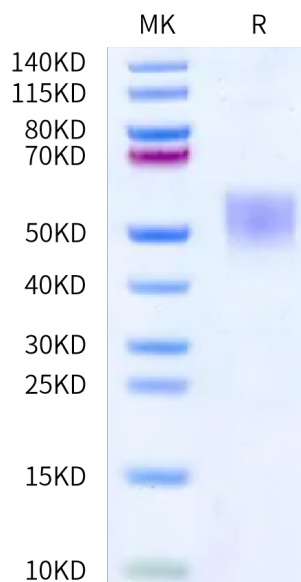
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

CD19 is a 95 kDa transmembrane glycoprotein that plays a central role in B cell activation and humoral immune responses. Functions as coreceptor for the B-cell antigen receptor complex (BCR) on B-lymphocytes. Decreases the threshold for activation of downstream signaling pathways and for triggering B-cell responses to antigens. Activates signaling pathways that lead to the activation of phosphatidylinositol 3-kinase and the mobilization of intracellular Ca^{2+} stores.

Assay Data

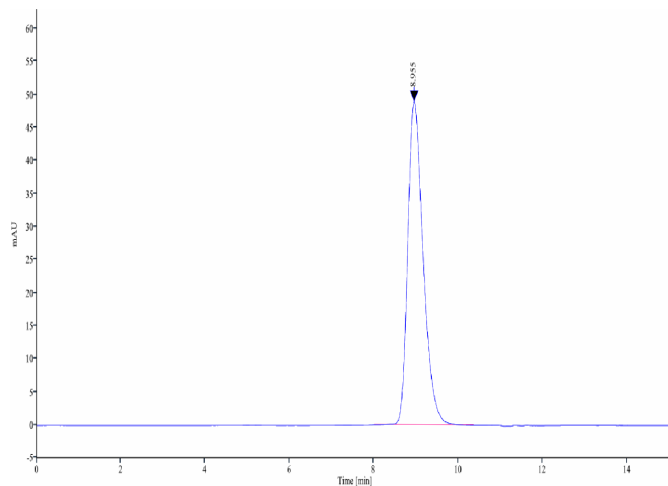
Bis-Tris PAGE



Human UltraPro Mutant CD19 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

Assay Data

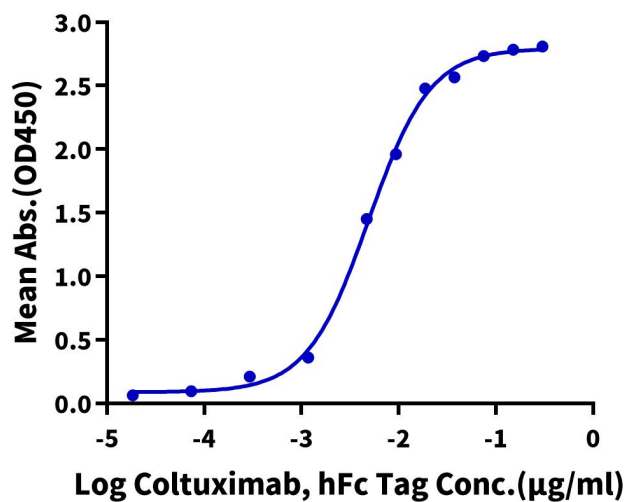


The purity of Human UltraPro Mutant CD19 is greater than 95% as determined by SEC-HPLC.

ELISA Data

Human UltraPro Mutant CD19, His Tag ELISA

0.2µg Human UltraPro Mutant CD19, His Tag Per Well

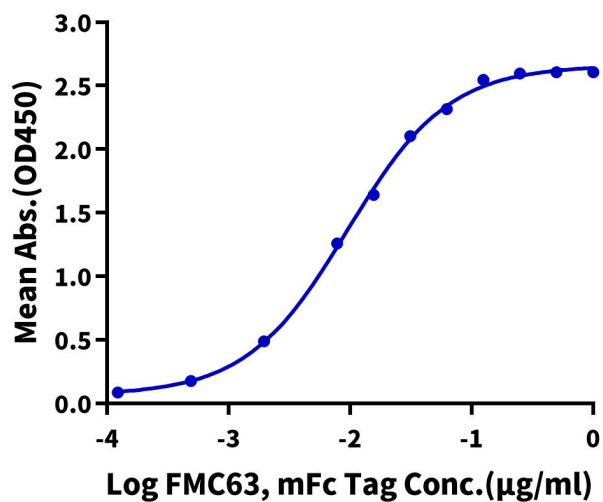


Immobilized Human UltraPro Mutant CD19, His Tag at 2µg/ml (100µl/well) on the plate. Dose response curve for Coltuximab, hFc Tag with the EC50 of 4.9ng/ml determined by ELISA.

Assay Data

Human UltraPro Mutant CD19, His Tag ELISA

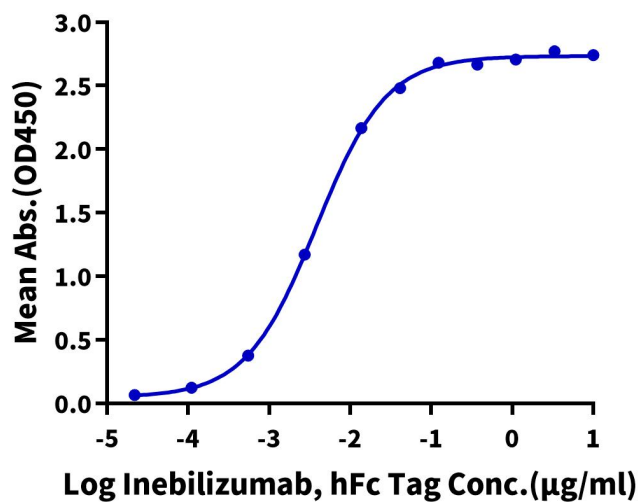
0.2µg Human UltraPro Mutant CD19, His Tag Per Well



Immobilized Human UltraPro Mutant CD19, His Tag at 2µg/ml (100µl/well) on the plate. Dose response curve for FMC63, mFc Tag with the EC50 of 9.5ng/ml determined by ELISA.

Human UltraPro Mutant CD19, His Tag ELISA

0.1µg Human UltraPro Mutant CD19, His Tag Per Well

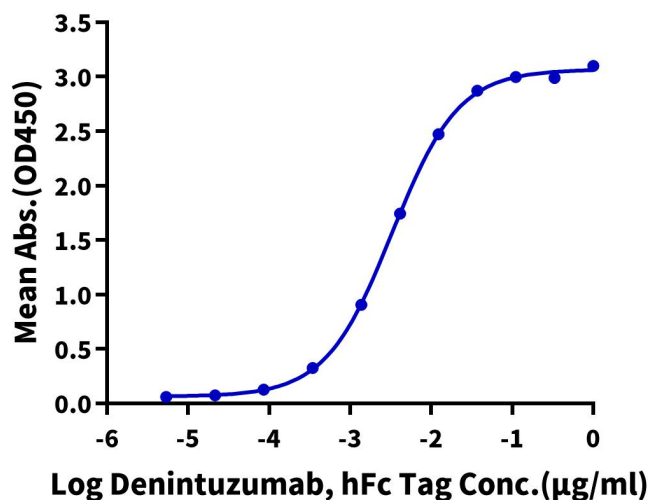


Immobilized Human UltraPro Mutant CD19, His Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Inebilizumab, hFc Tag with the EC50 of 3.8ng/ml determined by ELISA.

Assay Data

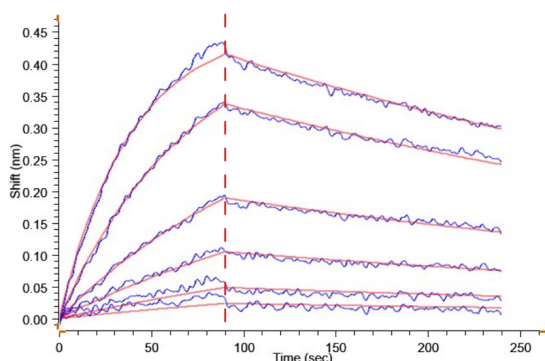
Human UltraPro Mutant CD19, His Tag ELISA

0.1µg Human UltraPro Mutant CD19, His Tag Per Well

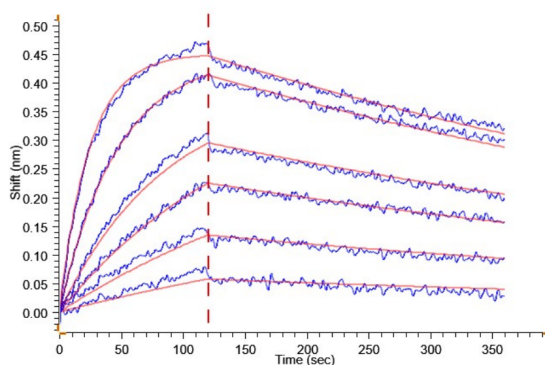


Immobilized Human UltraPro Mutant CD19, His Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Denintuzumab, hFc Tag with the EC50 of 3.3ng/ml determined by ELISA.

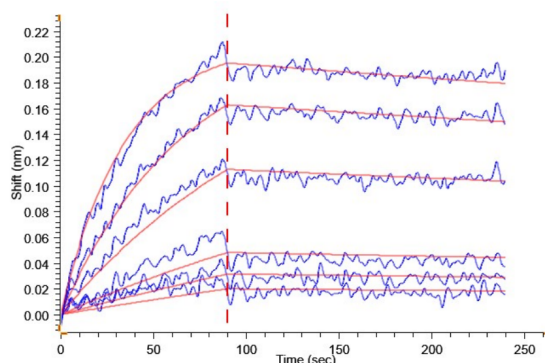
BLI Data



Loaded Coltuximab on ProA-Biosensor can bind Human UltraPro Mutant CD19, His Tag with an affinity constant of 9.48 nM as determined in BLI assay .

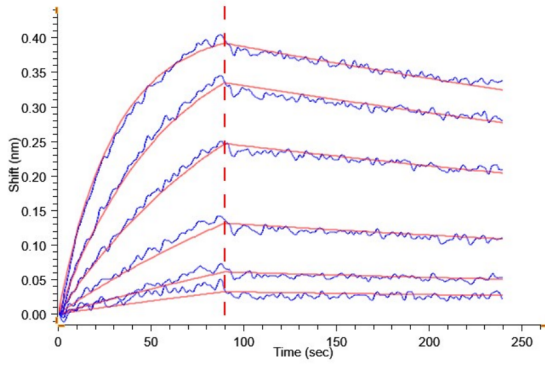


Loaded FMC63 on MFC-Biosensor can bind Human UltraPro Mutant CD19, His Tag with an affinity constant of 3.80 nM as determined in BLI assay .



Loaded Inebilizumab on ProA-Biosensor can bind Human UltraPro Mutant CD19, His Tag with an affinity constant of 3.97 nM as determined in BLI assay .

Assay Data



Loaded Denintuzumab on ProA-Biosensor can bind Human UltraPro Mutant CD19, His Tag with an affinity constant of 8.05 nM as determined in BLI assay .