For Research Use Only

## COL6A3 Recombinant antibody, PBS Only (Capture)

Catalog Number:83010-1-PBS



**Purification Method:** 

Protein A purification

CloneNo.:

230540A11

**Basic Information** 

Catalog Number: GenBank Accession Number:

83010-1-PBS NM\_004369

Size: GeneID (NCBI): 100ug , Concentration: 1 mg/ml by 1293

Nanodrop; UNIPROT ID:
Source: P12111
Rabbit Full Name:

Isotype: collagen, type VI, alpha 3

IgG Calculated MW:
Immunogen Catalog Number: 344 kDa
AG34752 Observed MW:

300 kDa

**Applications** 

**Tested Applications:** 

WB, Cytometric bead array, Indirect ELISA

Species Specificity:

human

**Product Information** 

83010-1-PBS targets COL6A3 as part of a matched antibody pair:

MP00027-3: 83010-1-PBS capture and 83010-4-PBS detection (validated in Cytometric bead array)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

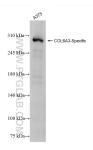
## **Background Information**

COL6A3 belongs to the type VI collagen family. Collagen VI acts as a cell-binding protein. It is expected to be expressed in smooth muscle. And the calculated molecular weight of COL6A3 is 343 kDa. The protein has similar expression in obese and T2DM (2 patients, and it regulates the chemotaxis and inflammation of macrophages in adipose tissue. Its expression is also related to weight gain. The expression of this protein in adipocytes is related to insulin resistance, which is believed to depend on PPAR (peroxisome proliferator-activated receptor) a-mediated adipocyte development (PMID: 25337653). Defects in COL6A3 are a cause of Bethlem myopathy (BM). Defects in COL6A3 are a cause of Ultrich congenital muscular dystrophy (UCMD) which also known as Ultrich scleroatonic muscular dystrophy. This antibody is specific to COL6A3.

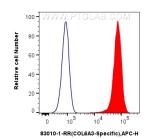
Storage

Storage: Store at -80°C. Storage Buffer: PBS only

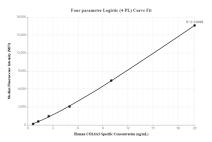
## **Selected Validation Data**



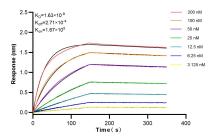
A375 cells were subjected to SDS PAGE followed by western blot with 83010-1-RR (COL6A3-Specific antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83010-1-PBS in a different storage buffer formulation.



1x10^6 HeLa cells were intracellularly stained with 0.25 ug COL6A3-Specific Recombinant antibody (83010-1-RR, Clone:230540A11) and APC-Conjugated Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C). This data was developed using the same antibody clone with 83010-1-PBS in a different storage buffer formulation.



Cytometric bead array standard curve of MP00027-3, COL6A3-Specific Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83010-1-PBS. Detection antibody: 83010-4-PBS. Standard: Ag34752. Range: 0.625-20 ng/mL.



Biolayer interferometry (BLI) kinetic assays of 83010-1-RR against Human COL6A3-Specific were performed. The affinity constant is 1.63 nM.