

**HUMAN CD38 PROTEIN, HFC TAG****Cat.#:** 11330**Product Name:** Human CD38 Protein**Size:** 10 µg, 50 µg and 100 µg**Synonyms:** CD38, T10, cADPr hydrolase 1**Target:** CD38**UNIPROT ID:** P28907**Description:** Recombinant human CD38 protein with C-terminal human Fc tag

**Background:** CD antigen CD38 is also known as ADP-ribosyl cyclase 1, which belongs to the ADP-ribosyl cyclase family. CD38 is expressed at high levels in pancreas, liver, kidney, brain, testis, ovary, placenta, malignant lymphoma and neuroblastoma. CD38 is a multifunctional ectoenzyme that catalyzes the synthesis and hydrolysis of cyclic ADP-ribose (cADPR) from NAD<sup>+</sup> to ADP-ribose. These reaction products are essential for the regulation of intracellular Ca<sup>2+</sup>. The loss of CD38 function is associated with impaired immune responses, metabolic disturbances, and behavioral modifications. The CD38 protein is a marker of cell activation. It has been connected to HIV infection, leukemias, myelomas, solid tumors, type II diabetes mellitus and bone metabolism. CD38 has been used as a prognostic marker in leukemia.

**Species/Host:** HEK293

**Molecular Weight:** The protein has a predicted molecular mass of 56.0 kDa after removal of the signal peptide. The apparent molecular mass of CD38-hFc is approximately 70-100 kDa due to glycosylation.

**Molecular Characterization:** CD38(Val43-Ile300) hFc(Glu99-Ala330)

**Purity:** The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.

**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.

**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.

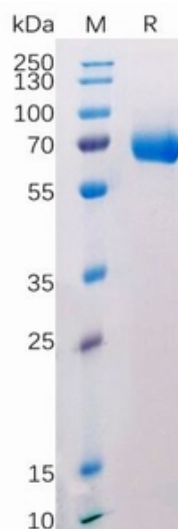


Figure 1. Human CD38, hFc Tag on SDS-PAGE under reducing condition.

## Human CD38, hFc tagged protein ELISA

0.1  $\mu$ g of Human CD38, hFc tagged protein per well

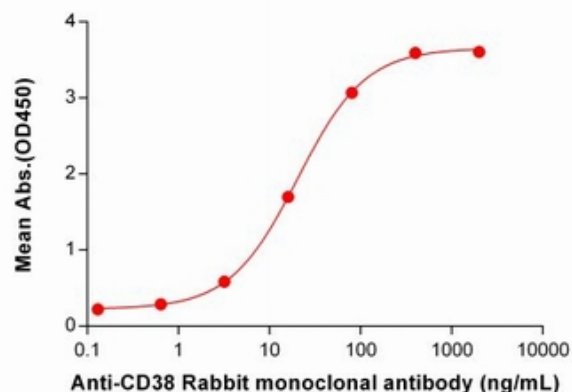


Figure 2. ELISA plate pre-coated by 1  $\mu$ g/ml (100  $\mu$ l/well) Human CD38, hFc tagged protein (11132) can bind anti-CD38 antibody, Rabbit mAb clone:DM30 in a linear range of 0.64-80 ng/ml.