

## Technical Data Sheet

### Biotin Human CD38 Protein (C-His-Avi)

**Catalog Number:** 800003, 800004

**Size:** 25 ug, 100 ug

**Target Name:** CD38, T10, cADPr 1

**Regulatory Status:** RUO

#### Product Details

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**Application:** ELISA, BLI

**Format:** Liquid, Biotinylated

**Expression Host:** HEK293

**Target Name:** CD38, T10, cADPr 1

**Species:** Human

**Sources:** Human CD38 protein (Val43-Ile300) with C-terminus His tag and Avi tag is expressed in HEK293 cells. This protein was site-specifically labeled with Biotin by BirA ligase.

**Accession Number:** P28907

**Molecular Weight:** The 285 amino acid protein has a predicted molecular weight of 33 kDa. The protein migrates at approximately 35-45 kDa on SDS-PAGE with DTT-reduced conditions.

**Affinity Tag:** C-His-Avi

**Purity:** >95% based on SDS-PAGE under reducing condition

**Regulatory Status:** RUO

**Formulation:** 1xPBS buffer, pH7.4, 0.22 µm filtered

**Endotoxin level:** Not tested

**Protein Concentration:** 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.

**Storage and Handling:** Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ -70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

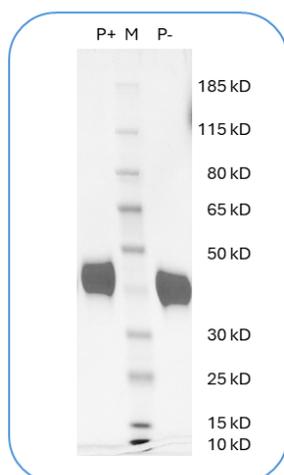
#### Background Information

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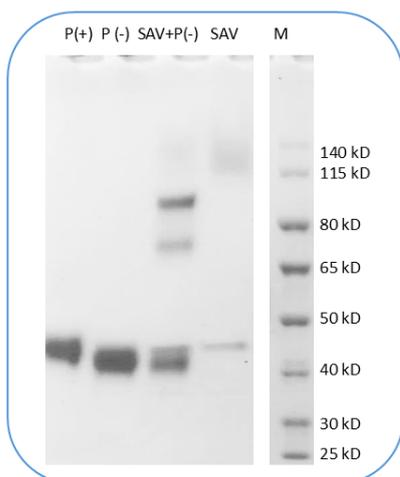
CD38 (ADP-ribosyl cyclase 1) is a Type II membrane protein involved in calcium signaling through the conversion of NAD(P)<sup>+</sup> into cADPR, NAADP<sup>+</sup>, and ADP-ribose. It is broadly expressed in immune cells and various tissues, and is linked to immune regulation, cancer, and metabolic disorders. CD38 also serves as a prognostic marker in leukemia.

#### Product Data

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Biotinylated human CD38 protein (C-His) on SDS-PAGE under reducing condition (P+) and non-reducing condition (P-). The gel was stained for 1 hour with BlinkBlue (catalog 700102). The purity of this protein appears to be greater than 95%. Biotinylation efficiency of this protein is > 80% based Streptavidin Gel shift assay.



Human CD38 Protein (C-His-Avi) was biotinylated in vitro using BirA ligase. SDS-PAGE analysis under non-reducing (P-) conditions shows the protein has a purity greater than 95%. A gel shift assay using co-incubation with streptavidin indicates that the biotinylation efficiency of the CD38 protein exceeds 70%.