

Technical Data Sheet

Biotinylated Human Mesothelin (E296-G580) Protein (C-His-Avi)

Catalog Number: 801303, 801304

Size: 25 ug, 100 ug

Target Name: Mesothelin, MPF, MSLN

Regulatory Status: RUO

Product Details

Application: ELISA, BLI

Format: Liquid, Biotinylated

Expression Host: HEK293

Species: Human

Sources: Human Mesothelin protein (Accession # AAH09272.1) (Glu296-Gly580) with C-terminus His-Avi tag is expressed in HEK293 cells. This protein was site-specifically labeled with Biotin by BirA ligase.

Accession Number: Q13421

Molecular Weight: The protein has a predicted molecular weight of 36kDa. Under DTT-reducing conditions, it migrates at approximately 35-45 kDa.

Affinity Tag: C-His-Avi

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

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

Endotoxin level: Not tested

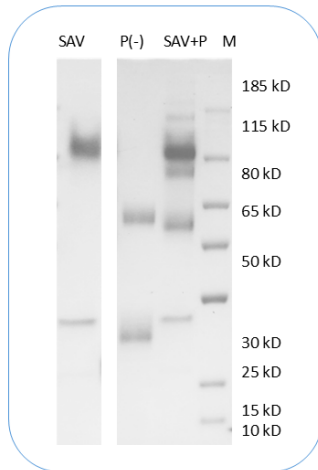
Protein Concentration: 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.

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

Mesothelin (MSLN), also known as CAK1, is a 70 kDa cell-surface protein cleaved into MPF (30 kDa) and mesothelin (40 kDa). MPF acts as a cytokine, while mesothelin is membrane-bound via glycosylphosphatidylinositol. It is overexpressed in various cancers, including mesotheliomas and ovarian cancer, and interacts with MUC16/CA-125, a cancer biomarker. Elevated mesothelin levels in serum make it a target for diagnostics and therapies, such as the recombinant immunotoxin SS1P, which has shown promise in clinical trials.

Product Data



Human Mesothelin (E296-G580, 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 Mesothelin protein exceeds 80%.