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# Biotin Human SECTM1 Protein (C-His-Avi)

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| **Catalog Number:** | 806903, 806904 |
| **Size:** | 25 ug, 100 ug |
| **Target Name:** | SECTM1, K12 |
| **Regulatory Status:** | RUO |

## PRODUCT DETAILS

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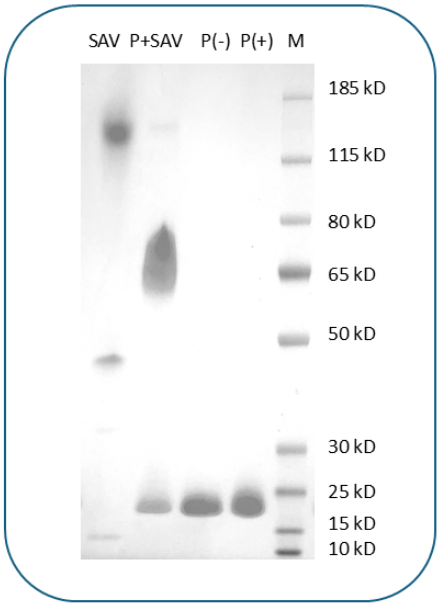
| **Application:** | ELISA, BLI |
| **Format:** | Liquid, Biotinylated |
| **Expression Host:** | CHO |
| **Species:** | Human |
| **Sources:** | Recombinant Human SECTM1 (Gln29-Gly145) with C-terminus His-Avi tag is expressed in CHO cell. This protein was site-specifically labeled with Biotin by BirA ligase. |
| **Accession Number:** | Q8WVN6 |
| **Molecular Weight:** | The protein has a predicted molecular weight of 16.3 kDa. Under DTT-reducing conditions, it migrates at approximately 20 kDa on SDS-PAGE. |
| **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

Secreted and transmembrane protein 1 (SECTM1), also known as K12, is a type I transmembrane and secreted glycoprotein of the SECTM family. It exists in both a ~27 kDa membrane-bound form and a ~20 kDa soluble form, containing two Ig-like domains and an N-linked glycosylation motif at its N-terminus. SECTM1 is primarily expressed in peripheral blood leukocytes, particularly granulocytes, and is also highly expressed in various cancer cells such as melanoma, breast cancer, and leukemia. Its expression can be significantly upregulated by IFN-γ, especially in pathological contexts like thymus disorders. SECTM1 is found in a perinuclear Golgi-like pattern, and while surface expression is often undetectable, it may rapidly be cleaved to form the soluble

version. Functionally, SECTM1 is involved in hematopoietic and immune system processes and acts as a natural ligand for CD7. Through its interaction with CD7, SECTM1 promotes T cell activation, proliferation, and cytokine production, enhances monocyte migration via the PI3K pathway, and boosts NK cell activation marker expression. These roles make it a potential target for modulating immune responses in autoimmune diseases, allogeneic transplantation, and IFN-γ–related pathologies.

## PRODUCT DATA




Human SECTM1 Protein (C-His-Avi) was biotinylated in vitro using BirA ligase. SDS-PAGE analysis under reducing (P+) and 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 SECTM1 protein exceeds 95%.