

Technical Data Sheet

APC Conjugated Human SECTM1 Protein (C-His)

Catalog Number: 807103, 807104

Size: 25 ug, 100 ug

Target Name: SECTM1, K12

Regulatory Status: RUO

Product Details

Application: FC

Format: Liquid, APC

Expression Host: CHO

Species: Human

Sources: Recombinant Human SECTM1 (Gln29-Gly145) with C-terminus His-tag is expressed in CHO cell and conjugated to APC.

Accession Number: Q8WVN6

Molecular Weight: The protein has a predicted molecular weight of 14.2 kDa. Under DTT-reducing conditions, it migrates at approximately 17-20 kDa on SDS-PAGE prior to conjugation.

Affinity Tag: C-His

Formulation: 1xPBS buffer, pH7.4, 0.09% NaN₃ with a carrier protein

Endotoxin level: Not tested

Protein Concentration: 25µg size is bottled at 0.1mg/mL concentration. 100 µg size is bottled at lot specific concentration.

Storage and Handling: Briefly centrifuge the vial upon receipt. An unopened vial may be stored at 2–8°C for up to six months.

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.