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PE Human SECTM1 Protein (C-His)

Catalog Number:	807101, 807102
Size:	25 ug, 100 ug
Target Name:	SECTM1, K12
Regulatory Status:	RUO

PRODUCT DETAILS

Application:	Flow Cytometry
Format:	Liquid, PE
Expression Host:	CHO
Species:	Human
Sources:	Recombinant Human SECTM1 (Gln29-Gly145) with C-terminus His-tag is expressed in CHO cell and conjugated to PE.
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.