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Human SECTM1 Protein (C-His)

Catalog Number:	807001, 807002
Size:	25 ug, 100 ug
Target Name:	SECTM1, K12
Regulatory Status:	RUO

PRODUCT DETAILS

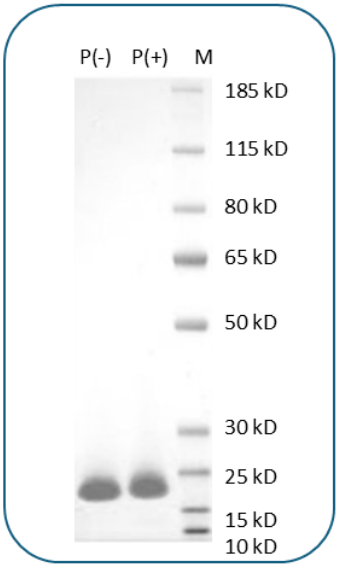
Application:	ELISA, BLI
Format:	Liquid, Purified
Expression Host:	CHO
Species:	Human
Sources:	Recombinant Human SECTM1 (Gln29-Gly145) with C-terminus His-tag is expressed in CHO cell.
Accession Number:	Q8WVN6
Molecular Weight:	The protein has a predicted molecular weight of 14.2 kDa. Under DTT-reducing conditions, it migrates at approximately 17-20 kDa on SDS-PAGE.
Affinity Tag:	C-His
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) 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%.