Supplementary Materials: Glycan-Dependent and -Independent Dual Recognition between DC-SIGN and Type II Serine Protease MSPL/TMPRSS13 in Colorectal Cancer Cells

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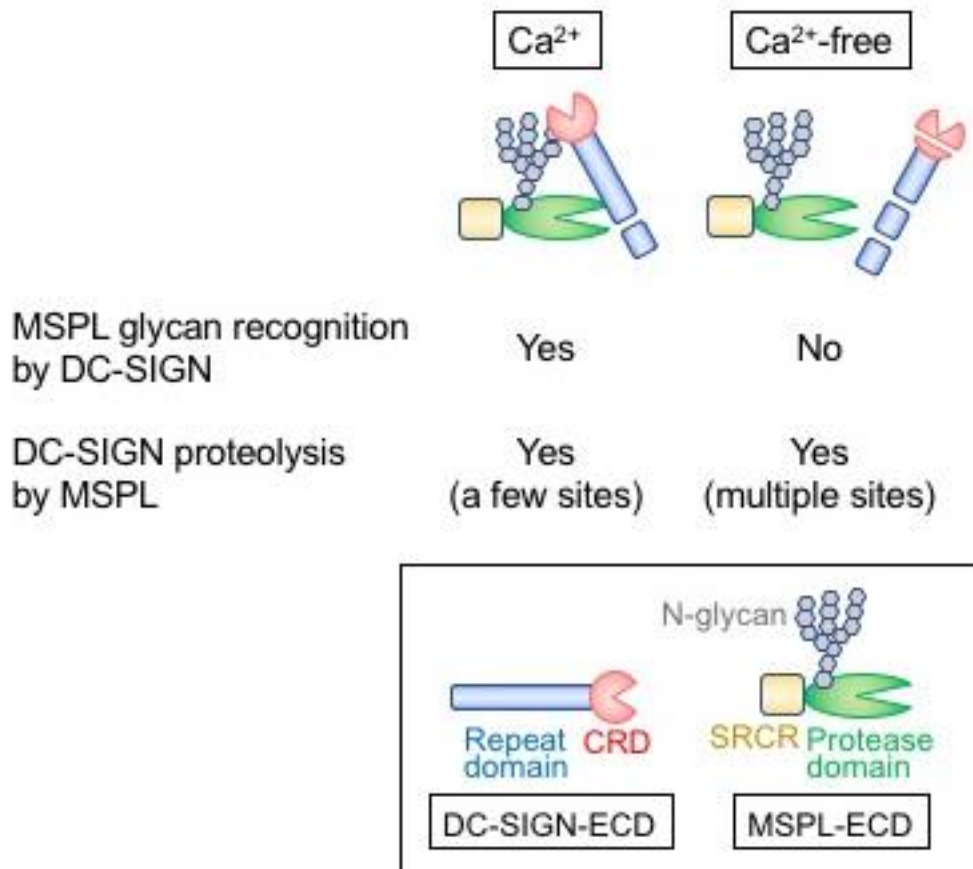
Figure S1. Dual recognition of DC-SIGN and MSPL Glycan recognition by MSPL is calcium dependent and proteolytic activity of MSPL is calcium independent. Glycan mediated MSPL recognition by DC-SIGN is not required for DC-SIGN digestion by MSPL but it interferes with DC-SIGN digestion by MSPL.

Table S1. A part of the data from Mascot search (MS/MS ion search, version 2.1.04) of the DC-SIGN ligand proteins. In 100kDa band (C4), MSPL(No.5) was identified as the most predominant protein except for keratins (No.1-4) and in 90kDa band (C5), MSPL (No.7) was identified as the second major protein followed by Mac2-BP (No. 5) except for keratins (No. 1-4,6)

Band	No	p*I*	MW	Protein	Accession no.
C4 (100kDa)	5	8.9	62640	Transmembrane protease, serine 13 (EC 3.4.21.-) (Mosaic serine protease) (Membrane-type mosaic seri	TMPSD_HUMAN
	7	5.49	590626	Bullous pemphigoid antigen 1, isoforms 6/9/10 (Trabeculin-beta) (Bullous pemphigoid antigen) (BPA)	BPAEA_HUMAN
	8	5.62	174786	Protein ALO17 (ALK lymphoma oligomerization partner on chromosome 17) - Homo sapiens (Human)	ALO17_HUMAN
C5 (90kDa)	5	5.13	65289	Galectin-3-binding protein precursor (Lectin galactoside-binding soluble 3-binding protein) (Mac-2-	LG3BP_HUMAN
	7	8.9	62640	Transmembrane protease, serine 13 (EC 3.4.21.-) (Mosaic serine protease) (Membrane-type mosaic seri	TMPSD_HUMAN

Table 2. A part of the Mascot search data, which indicates that NKPGVYTK was the only one sequence corresponding to MSPL.

prot_hit _num	prot_acc	prot_desc	prot_score	prot_mass	prot_matches	prot_cove r	prot_le n	prot_p i
5	TMPSD_ HUMAN	Transmembrane protease, serine 13 (EC 3.4.21.-)	40	62640	1	1.4	581	8.9

prot_pi	pep_que ry	pep_exp_mz	pep_score	pep_res _ before	pep_seq	pep_res _after		
8.9	57	453.75	39.84	R	NKPGVYTK	V		