

Table S1. List of the potential substrates of Der p 1, Der p 6 and Der p 9 as identified among the human proteome using the PoPS algorithm. Proteins displaying at least one extracellular site susceptible to proteolysis were selected among the 500 best hits during the PoPS analysis (threshold score=10). Hypothetical and predicted proteins were not considered. Attention was paid to proteins directly or indirectly involved in allergy- or inflammation-related immune mechanisms on the basis of experimental findings (represented in bold).

Potential Substrates	Targeted Sequences in the Extracellular Region	Predicted Proteases
150 kDa TGFβ1-binding protein CD109 antigen	EDGSFSAFG	Der p 6
Artemin	LVPVRALGL	Der p 1
Butyrophilin like protein 9	SVVVRAGAL	Der p 1, Der p 3
CD C-type lectin-like receptor 1	VQNIKLAYS	Der p 1
Collagen α-1(XII) chain	FVKVRAFLE	Der p 3
Collagen α-1(XIV) chain	RDTLFTAES	Der p 6
C-type lectin domain family 14 member A	LSTVRAGAE	Der p 1
Dendritic cell specific ICAM-3-grabbing non-integrin 1	LVVIKSAEE	Der p 1
Ephrin type B receptor 1	VVQVRARTV	Der p 1, Der p 3
Fc receptor-like protein 5	LRVPRAQAV	Der p 1
	FRAPRAQAV	Der p 1
G protein-coupled receptor 64	PVVPRATVL	Der p 1
G protein-coupled receptor 112	GDLIRTSE	Der p 3
G protein-coupled receptor 173	RVFVKACAV	Der p 1
Interleukin-1 receptor type II	PVALRCPQV	Der p 3
Interleukin-3 receptor α	LVRGRSAAF	Der p 1, Der p 3
Interleukin-4 receptor	HVKPRAPGN	Der p 1, Der p 3
Interleukin-5 receptor α type II	LHKGFSASV	Der p 6
Interleukin-10 receptor α	GYRARVRVAV	Der p 1, Der p 3
Interleukin-12 receptor β type II	AVAVSAANS	Der p 1
Interleukin-17 receptor B	KKCVKAGSL	Der p 1
Interleukin-17 receptor C type II	VVLSFQAYP	Der p 6
Interleukin-17 receptor E	SFTGSSAYI	Der p 6
	MHATFSAAW	Der p 6
Interleukin-18 receptor 1	FILVRKAIM	Der p 1, Der p 3
Interleukin-23 receptor	LVWVQAANA	Der p 1, Der p 6
	VVHVKSLET	Der p 1
	AVISRAETI	Der p 3
Immunoglobulin DC C subclass member A	PRNVRAVS	Der p 1
Integrin α-3	IVLLRARPV	Der p 3
Integrin α-9 precursor	VVLLRARPV	Der p 3
Integrin β-5	LYKNFTALI	Der p 6
Junction plakoglobin	VVVTKAAMI	Der p 1, Der p 3
Killer cell immunoglobulin-like receptor	GSMMLRAG	Der p 3
Low affinity immunoglobulin ε Fc receptor (FcεRIIa)	QLEERAARN	Der p 3
Low density lipoprotein-related protein 1B precursor	SVAVFGAYI	Der p 6
	SVDPFAYI	Der p 6
Macrophage mannose receptor 1 (MMR1)	PGGRSSLS	Der p 3
Macrophage stimulating protein receptor (MST1R)	VVPSFSAGG	Der p 6
Metalloproteinase inhibitor 2	DVVIRAKAV	Der p 1, Der p 3
Neutrophil elastase preproprotein	NVNVRAVRV	Der p 1, Der p 3
Olfactory receptor 2T8	PVLVRLACA	Der p 3
Pentraxin-related protein PTX3	RLESFSACI	Der p 6
Platelet-derived growth factor receptor α	VVEVRAIPP	Der p 3
Pro-low-density lipoprotein receptor-related protein 1	DVHVKAGRV	Der p 1

Prosaposin	VVAPFMANI	Der p 6
Prosaposin-like protein-1	GNRRRRARAV	Der p 3
Protocadherin γ -A12	PQASYSAYI	Der p 6
	DNAGYSARA	Der p 6
Scavenger receptor cysteine-rich type 1 protein M160	RVEVKHADT	Der p 1
Somatostatin receptor type 4	PGDARAAGM	Der p 3
Semaphorin-4A	GPMSRSLRP	Der p 3
	GDERRALSF	Der p 3
T-cell surface glycoprotein CD1b	RAQKFCALI	Der p 6

amino acid at positions P₅ to P₄' after three rounds of selection for libraries **(F)** X₄-X-X₄ with Der p 1, **(F)** X₄-R/K-X₄ with Der p 3 and **(I)** F X₄-Y/F-X₄ with Der p 6.