

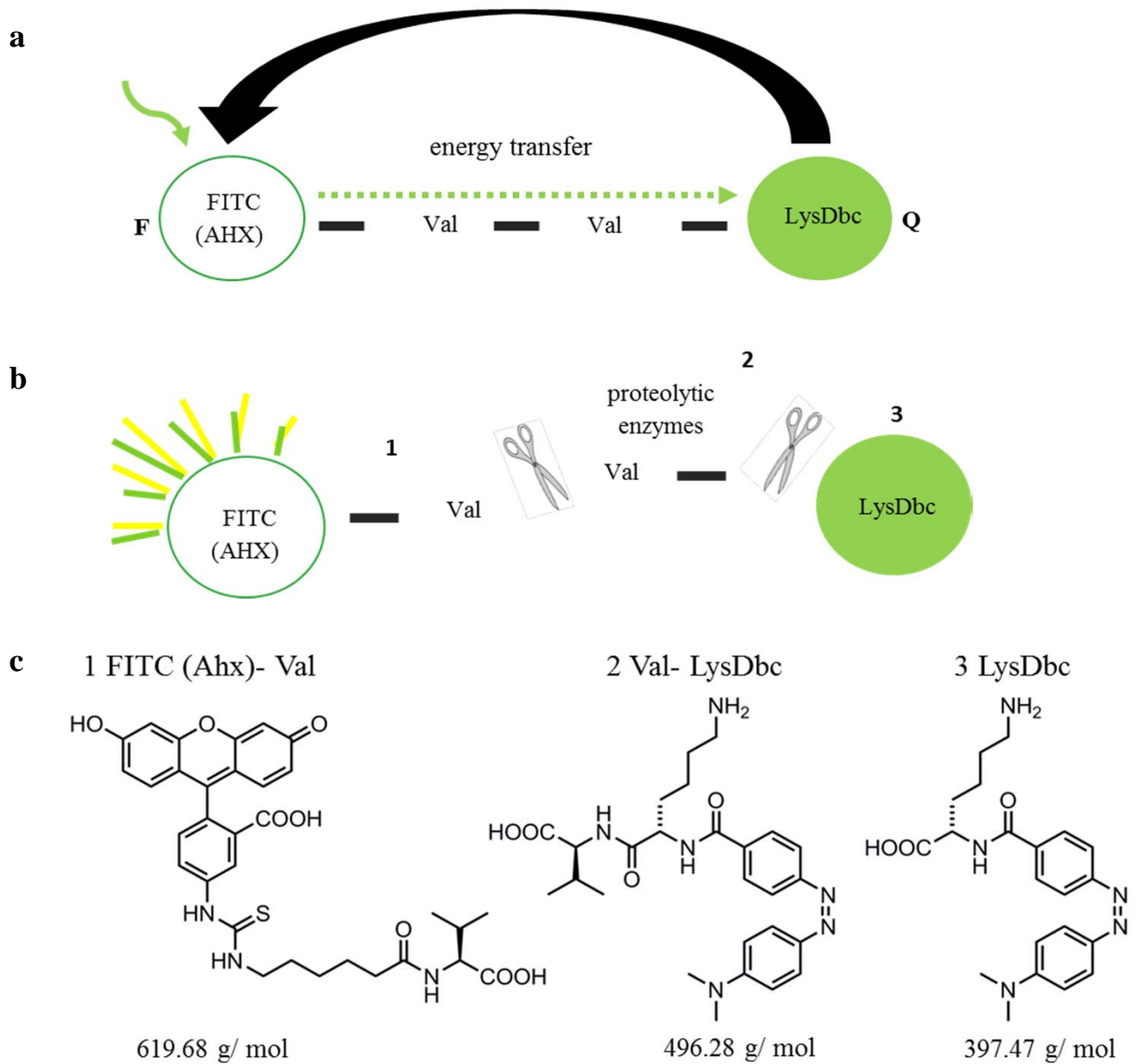
## **Supporting Information**

### **Nepenthesin protease activity displays the digestive fluid dynamics in carnivorous *Nepenthes* plants**

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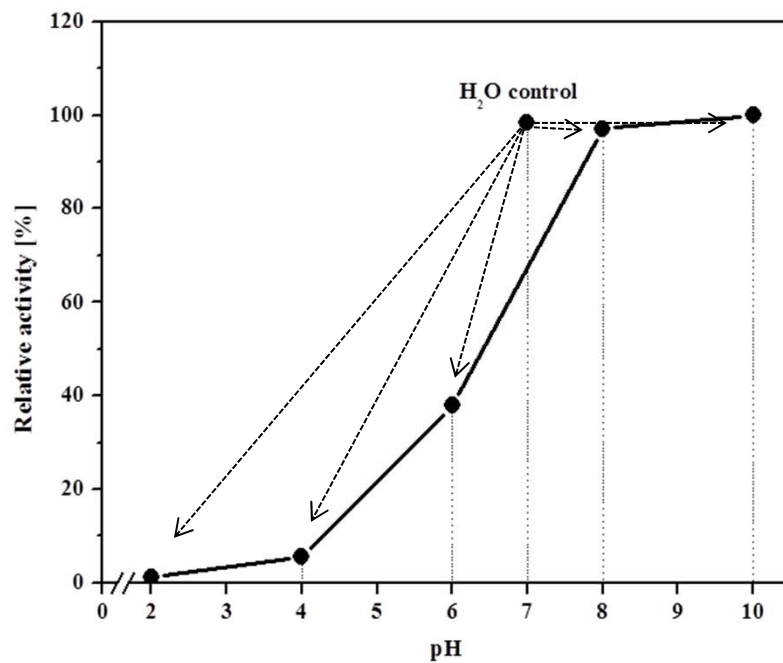
**Figures A-D**

**Table A**

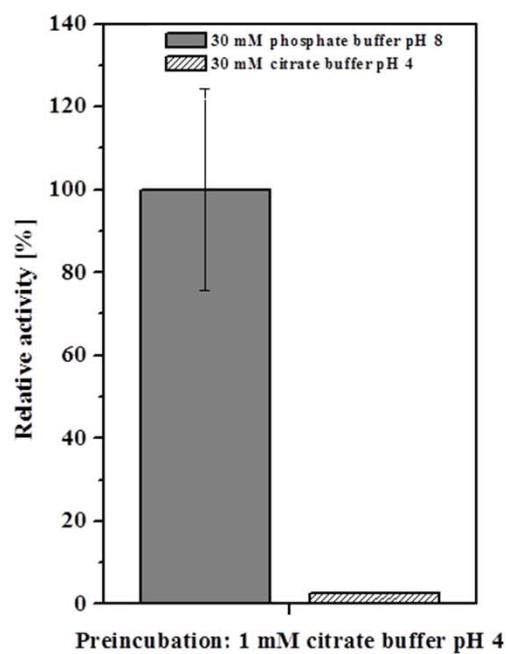


**Figure A. FRET-peptide, -method and putative cleavage sites.**

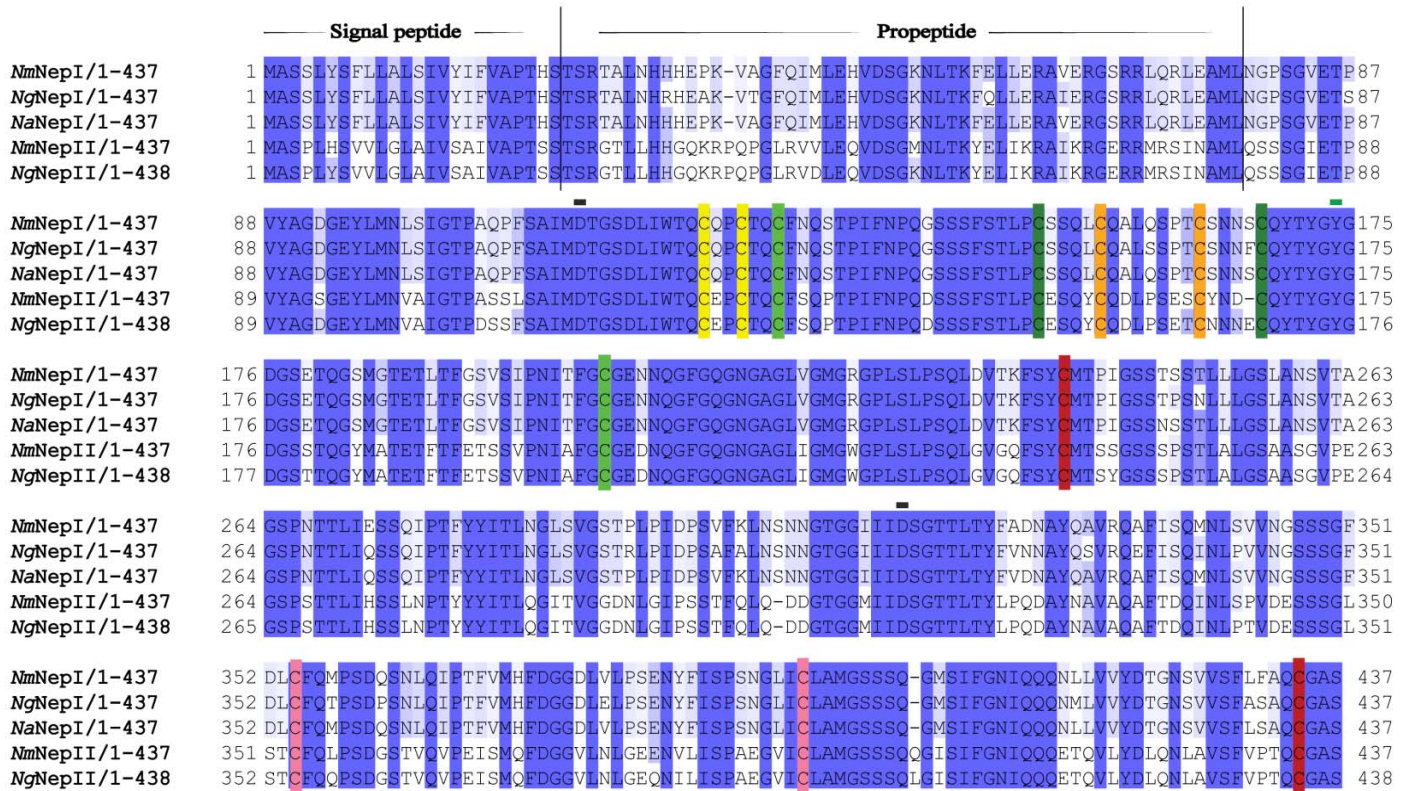
**a**



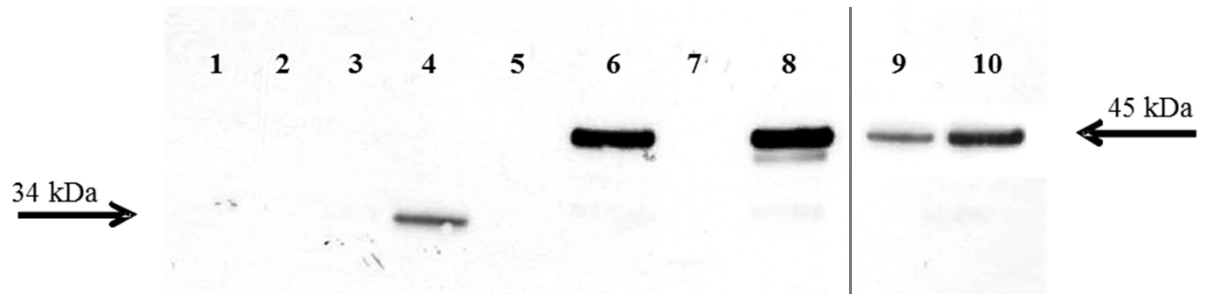
**b**



**Figure B. Substrate/ Product fluorescence dependence on different pH values.**



**Figure C. *N. mirabilis* nepenthesin I, II (*NmNepI/II*) protein alignment compared to *N. gracilis* (*Ng*) and *N. alata* (*Na*) nepenthesin amino acid sequences.**



**Figure D. Western blot of recombinant *N. mirabilis* nepenthesin II.**

**Table A. List of primer sequences used in this study.**

1_NepI_forward_partialSequence	5' CGGGCAAAAACCTTAACCAA 3'
2_NepI_reverse_partialSequence	5' ACCGTCAAAATGCATCACAA 3'
3_NepII_forward_partialSequence	5' TTCCTTGCGAGAGCCAGTAT 3'
4_NepII_reverse_partialSequence	5' GCTGCTGGATATTCCCAAAA 3'
5_NepI_3'-RACE	5' GTGCTGTCGAAAGGGGGAGTCGTAG 3'
6_NepI_5'-RACE	5' CGGAGAAAGGTTGTGCCGGAGTC 3'
7_NepII_3'-RACE	5' CTCCTCACCCAGCACTCTCGCACTT 3'
8_NepII_5'-RACE	5' ACCGCATTGTAAGCGTCTTGTGGAAG 3'
9_NepI_forward_pMIB/V5-HisAvector	5' TAATGCATGCTAACGTCAAGAACAGCTCTCAATC 3'
10_NepI_reverse_pMIB/V5-HisAvector	5' ATTATCTAGACGACGCACCACATTGAGCAC 3'
11_NepII_forward_pMIB/V5-HisAvector	5' TAATGCATGCTAACCTCAAGAGGAACCCTTCTCATCAT 3'
12_NepII_reverse_pMIB/V5-HisAvector	5' ATTATCTAGACGACGCACCACACTGAGTAGGAACGAA 3'