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**Table S1.** Inflection temperature values (Ti) of recombinant Nps5 protein after time of incubation (48 h) and upon labelling reaction as determined using nano-DSF assays.

**Table S2**. GScores (kcal/mol) of top scored poses of compounds **2**, **7-11** from six independent docking calculations.

**Figure S1.** Thermal stability of recombinant Nps5 (protein concentration:  $3.4 \mu M$ ) in Tris buffer (20 mM Tris, 140mM NaCl, pH 8) freshly prepared (0 minutes) and after 48 h incubation in dark at +4°C. The experiment was carried out using nano-DSF with Tycho NT.6 instrument.

**Figure S2.** Thermal stability of recombinant Nps5 (protein concentration: 3.4 μM) in Tris buffer (20 mM Tris, 140mM NaCl, pH 8) before (wild type Mpro) and after the labelling reaction (red Mpro). The experiment was carried out using nano-DSF with Tycho NT.6 instrument.

**Figure S3.** MST binding curve of nirmatrelvir (1) against the main protease Nsp5. The curve is obtained plotting the normalized fluorescence variation ( $\Delta$ Fnorm) vs ligand concentration (M).

**Figure S4.** MST binding curve of ellagic acid (7) against the main protease Nsp5. The curve is obtained plotting the initial fluorescence change (Raw Fluorescence) *vs* ligand concentration (M).

**Figure S5.** MST binding curve of urolithin A (8) against the main protease Nsp5. The curve is obtained plotting the initial fluorescence change (Raw Fluorescence) *vs* ligand concentration (M).

**Figure S6.** MST binding curve of urolithin B (9) against the main protease Nsp5. The curve is obtained plotting the initial fluorescence change (Raw Fluorescence) *vs* ligand concentration (M).

**Figure S7.** MST binding curve of urolithin C (**10**) against the main protease Nsp5. The curve is obtained plotting the initial fluorescence change (Raw Fluorescence) *vs* ligand concentration (M).

**Figure S8.** MST binding curve of urolithin D (**11**) against the main protease Nsp5. The curve is obtained plotting the initial fluorescence change (Raw Fluorescence) *vs* ligand concentration (M).

Table S1.

Protein Sample	Ti (°C)		
Nsp5 (wild type Mpro)	$60.1 \pm 0.1$		
(whattype Mpro)	00.1 ± 0.1		
Nsp5 (wild type Mpro) – after 48 h	$60.3 \pm 0.1$		
NT650-Nps5 (red Mpro)	$60.3 \pm 0.1$		

Table S2.

	GScore	GScore	GScore	GScore	GScore	GScore	
Compound	(kcal/mol)	(kcal/mol)	(kcal/mol)	(kcal/mol)	(kcal/mol)	(kcal/mol)	Mean ± st. dev.
	Replica #1	Replica #2	Replica #3	Replica #4	Replica #5	Replica #6	
Myricetin (2)	-7.073	-7.073	-7.073	-7.073	-7.073	-7.073	-7.073 ± 0.000
Ellagic Acid (7)	-6.085	-6.085	-6.085	-6.085	-6.085	-6.085	$-6.085 \pm 0.000$
Urolithin A (8)	-6.343	-6.462	-6.462	-6.462	-6.462	-6.462	-6.44217 ± 0.04858
Urolithin B (9)	-5.739	-5.739	-5.739	-5.739	-5.739	-5.739	-5.739 ± 0.000
Urolithin C (10)	-6.082	-6.081	-6.081	-6.081	-6.081	-6.081	-6.08117 ± 0.00041
Urolithin D (11)	-6.520	-6.518	-6.518	-6.518	-6.518	-6.518	-6.51833 ± 0.00082

Figure S1.

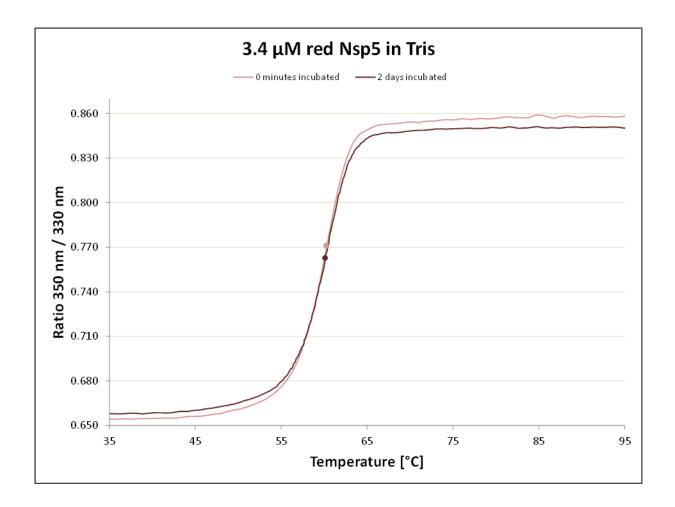


Figure S2.

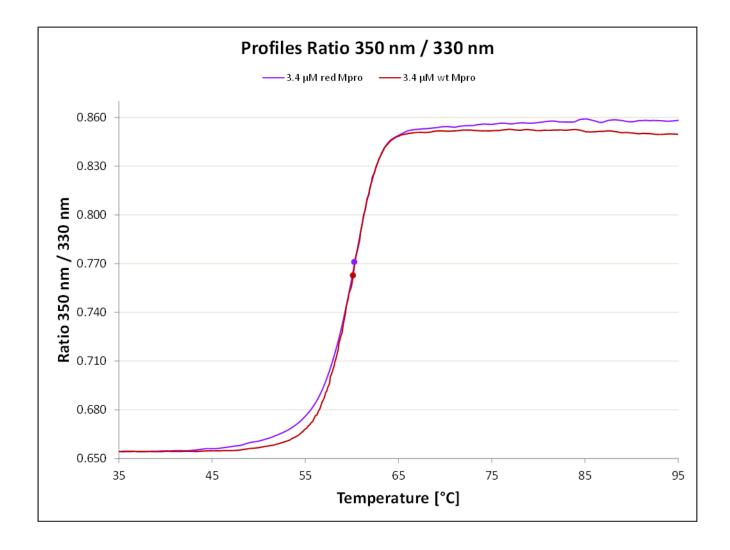


Figure S3.

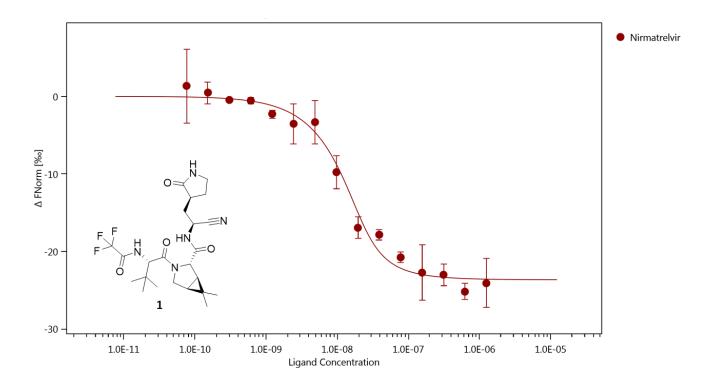


Figure S4.

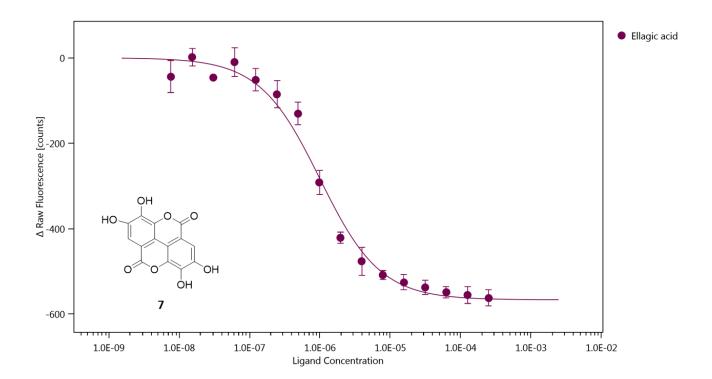


Figure S5.

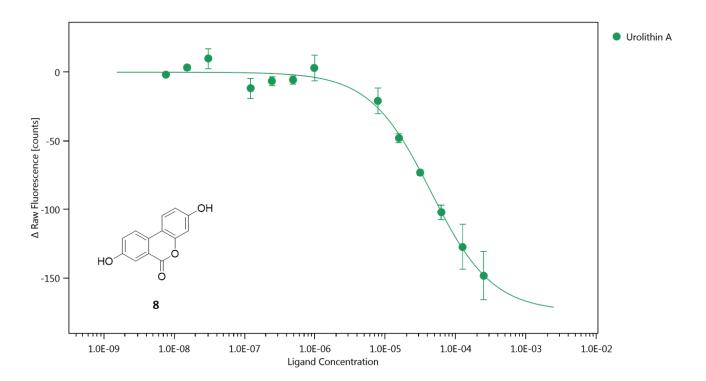


Figure S6.

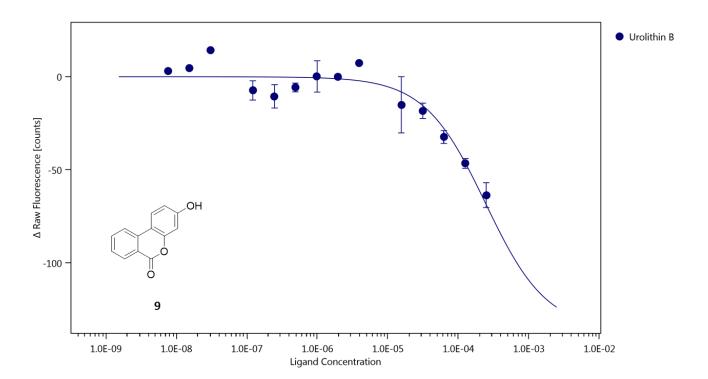


Figure S7.

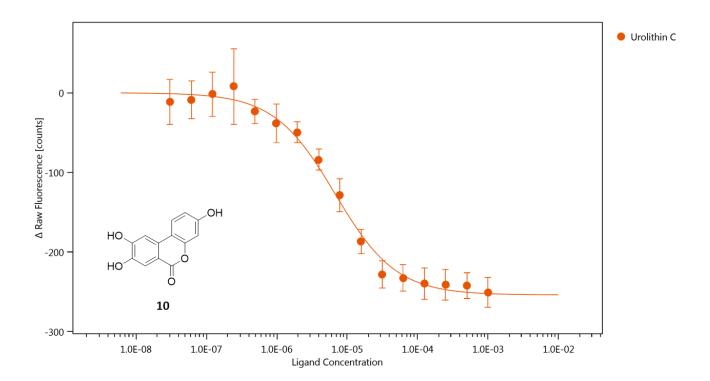


Figure S8.

