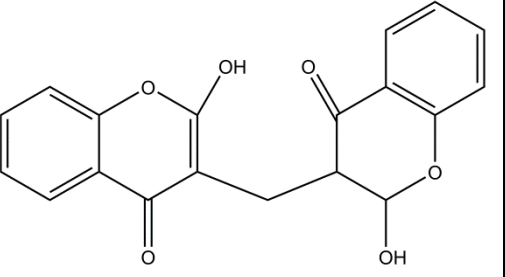
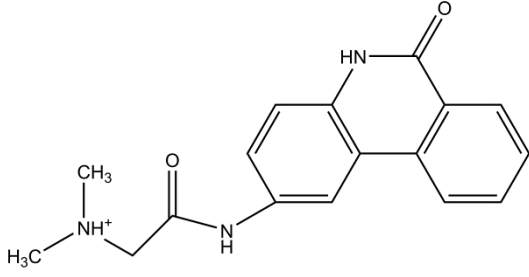
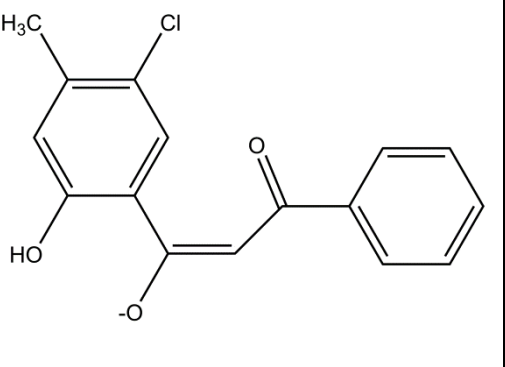
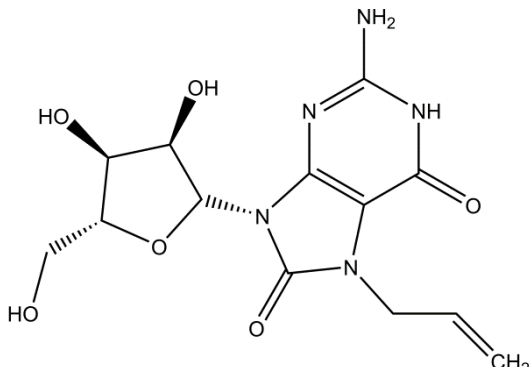
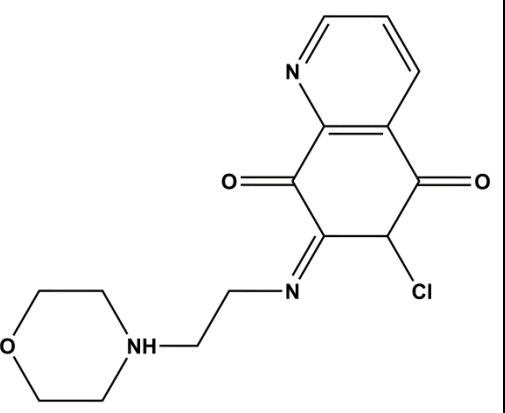
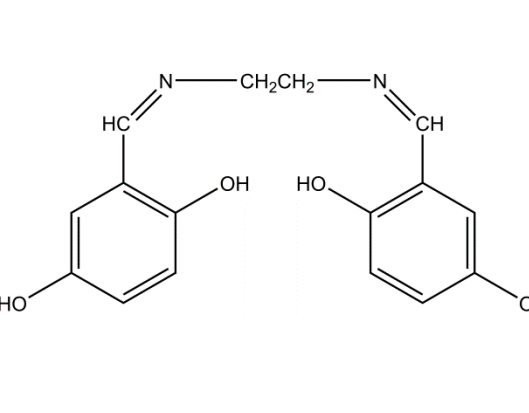
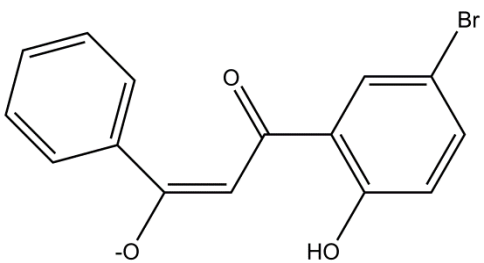


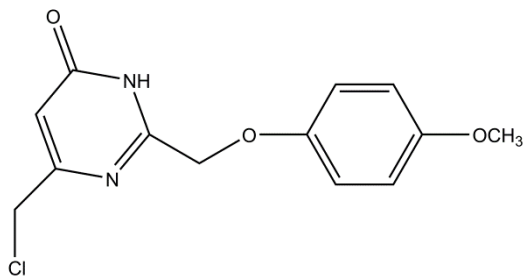
**Table S1.** List of the compounds used to test for the SPR assay of full-length HCoV-OC43 NP.

Number	H1	Number	H5
Chemical formula	3,3'-Methylenebis(4-hydroxycoumarin)	Chemical formula	N-(6-Oxo-5,6-dihydrophenanthridin-2-yl)-(N,N-dimethylamino)acetamide hydrochloride (PJ34)
structure		structure	
Number	H2	Number	H6
Chemical formula	1-(5-Chloro-2-hydroxy-4-methylphenyl)-3-phenyl-1,3-propanedione	Chemical formula	7-Allyl-7,8-dihydro-8-oxoguanosine
structure		structure	
Number	H3	Number	H7
Chemical formula	6-chloro-7-(2-morpholin-4-yl-ethylamino)quinoline-5,8dione	Chemical formula	N,N-Bis(2,5-dihydroxybenzylidene)ethylenediamine
structure		structure	
Number	H4	Number	H8
Chemical formula	1-(5-Bromo-2-hydroxyphenyl)-3-phenyl-1,3-propanedione	Chemical formula	6-(chloromethyl)-2-[(4-methoxyphenoxy)methyl]pyrimidin-4-ol

structure



structure



**Table S2.** The compounds obtained from virtual screening that affected the RNA-binding capacity of N protein.

No.	Compound	Inhibition of RNA-binding activity
H1	3,3'-Methylenebis(4-hydroxycoumarin)	- <sup>a</sup>
H2	1-(5-Chloro-2-hydroxy-4-methylphenyl)-3-phenyl-1,3-propanedione	-
H3	6-chloro-7-(2-morpholin-4-yl-ethylamino)quinoline-5,8dione	++ <sup>b</sup>
H4	1-(5-Bromo-2-hydroxyphenyl)-3-phenyl-1,3-propanedione	-
H5	N-(6-Oxo-5,6-dihydrophenanthridin-2-yl)-(N,N-dimethylamino)acetamide hydrochloride	+ <sup>c</sup>
H6	7-Allyl-7,8-dihydro-8-oxoguanosine	-
H7	N,N-Bis(2,5-dihydroxybenzylidene)ethylenediamine	-
H8	6-(chloromethyl)-2-[(4-methoxyphenoxy)methyl]pyrimidin-4-ol	-

<sup>a</sup> No significant inhibition was observed.

<sup>b</sup> decreased the RNA-binding capacity of N protein by 20%.

<sup>c</sup> decreased the RNA-binding capacity of N protein by 10%.