Supplementary Material List:

Figure S1. Generation and Testing of recombinant ACE2 Protein Truncates
Figure S2. Purification of short mouse ACE2 1-619
Figure S3. Amino acid sequences and molecular weights of the mouse ACE2 truncates

Supplementary Figure S1. Generation and Testing of recombinant ACE2 Protein Truncates.

A scheme showing a process of generation of a series of ACE2 truncates of varying lengths using cDNA of native mouse ace2 1-740AA as a template and ace2-sequence-specific primers. The generated C-terminally truncated ace2 cDNAs were inserted into pcDNA plasmid and the constructs expressed in HEK293 cells. The conditioned culture media were used to verify the presence of the ACE2 protein by Western blot and its enzymatic functionality by measuring ACE2 activity using a fluorometric substrate Mca-APK-Dnp.
Supplementary Figure S2. Purification of short mouse ACE2 1-619. Conditioned serum-free medium from a clone of stably transfected HEK 293 cells that overexpress ACE2 1-619 was subjected to anion exchange Q-column. (Panel A). A chromatogram showing peaks of proteins eluted from the Q column (blue line) by applying increasing concentration of NaCl (brown line). Brown dashed lines perpendicular to x-axis indicate start points of collection of six elution fractions. The pink frame indicates a peak collected in fraction 2. Enzymatic assay (Panel B) using Mca-APK-Dnp substrate on all 6 fractions showing that ACE2 activity is restricted to fraction 2 (highlighted by pink frame) that represents the peak highlighted in panel A. This chromatographic step resulted in highly purified short ACE2 1-619 protein as shown on Brilliant Blue stained PVDF membrane (Panel C).
Supplementary Figure S3. Amino acid sequences and the computed theoretical molecular weights of three mouse ACE2 protein truncates: 1-522 (A), 1-605 (B) and 1-619 (C) using the Expasy Informatics tool.