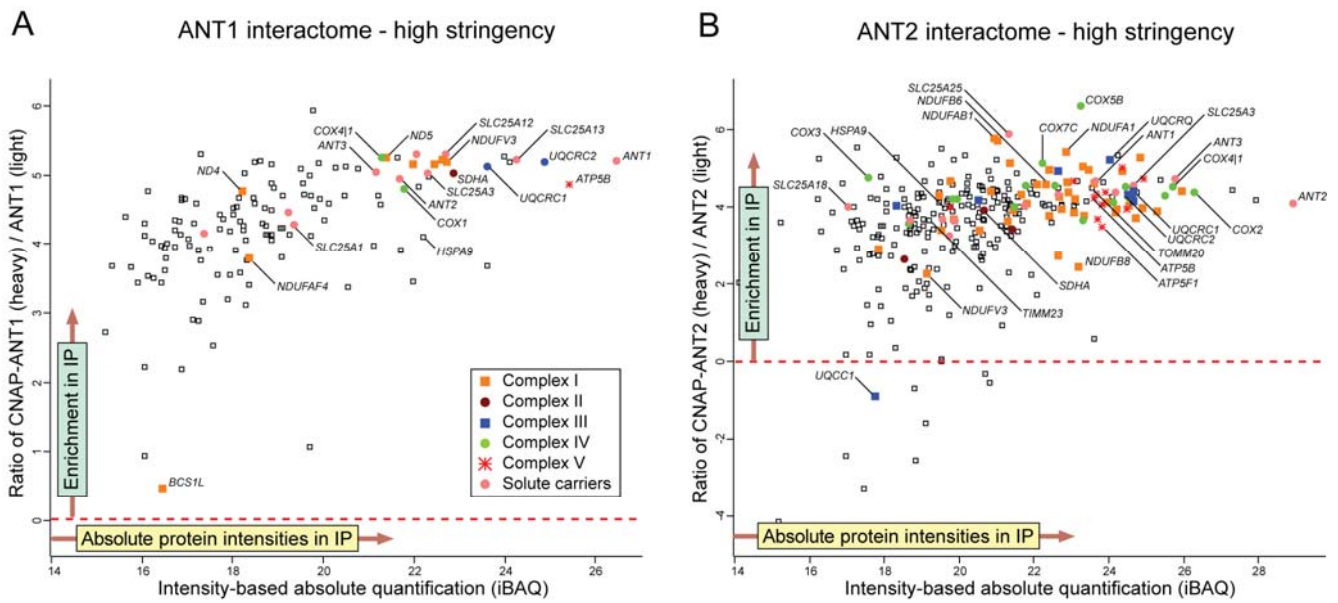


Supplemental Materials

Molecular Biology of the Cell

Lu et al.



Supplementary Figure 1

Supplementary Figure 1. Overexpressed ANT1 and ANT2 in HEK293 Flp-In cells interact with numerous heterologous proteins, including respiratory subunits and other solute carriers. Scatter plot of proteins identified to interact with overexpressed CNAP-ANT1 (A) or CNAP-ANT2 (B) following a high stringency conditions (two consecutive rounds of immunoprecipitation).

Table S1 – Respiratory proteins identified to interact with ANT1, ANT2, or ANT1 and ANT2.

	ANT1			ANT2			ANT2vsANT1		
Complex I	ND2 <i>ND4</i> <i>ND5</i> NDUFA2 NDUFA3 NDUFA5 NDUFA6 NDUFA7 NDUFA8 NDUFA9 NDUFA10 NDUFA11 NDUFA12	NDUFA13 NDUFAB1 NDUFB1 NDUFB3 NDUFB4 NDUFB5 NDUFB6 NDUFB7 NDUFB8 NDUFB9 NDUFB10 NDUFB11	NDUFC2 NDUFS1 NDUFS2 NDUFS3 NDUFS4 NDUFS5 NDUFS6 NDUFS7 NDUFS8 NDUFV1 NDUFV2 NDUFV3	<i>ND1</i> ND5 <i>NDUFA1</i> NDUFA2 NDUFA3 NDUFA5 NDUFA6 NDUFA7 NDUFA8 NDUFA9 NDUFA10 NDUFA11 NDUFA12	NDUFA13 NDUFAB1 NDUFB3 NDUFB4 NDUFB5 NDUFB6 NDUFB7 NDUFB8 NDUFB9 NDUFB10 NDUFB11	NDUFS1 NDUFS2 NDUFS3 NDUFS4 NDUFS5 NDUFS6 NDUFS7 NDUFS8 NDUFV1 NDUFV2 NDUFV3	NDUFA1 NDUFA2 NDUFA3 NDUFA5 NDUFA6 NDUFA7 NDUFA8 NDUFA9 NDUFA10 NDUFA11 NDUFA12 NDUFA13 NDUFAB1	NDUFB1 NDUFB3 NDUFB4 NDUFB5 NDUFB6 NDUFB7 NDUFB8 NDUFB9 NDUFB10 NDUFB11	NDUFS2 NDUFS3 NDUFS4 NDUFS5 NDUFS6 NDUFS7 NDUFS8 NDUFV1 NDUFV2 NDUFV3
Complex II	SDHA	SDHB	SDHC	SDHA	SDHB	SDHC	SDHA	SDHB	SDHC
Complex III	UQCRC1 UQCRC2 CYC1	UQCR10 UQCRB	UQCRFS1 UQCRQ	UQCRC1 UQCRC2 CYC1	<i>CYTB</i> UQCR10 UQCRB	UQCRFS1 UQCRH UQCRQ	UQCRC1 UQCRC2 CYC1	UQCR10 UQCRB	UQCRFS1 UQCRH UQCRQ
Complex IV	COX1 COX2 COX4I COX5A	COX5B COX6B1 COX6C COX7A2	COX7A2L COX7B COX8A	COX2 COX3 COX4I COX5A	COX5B COX6B1 COX6C COX7A2	COX7A2L COX7C	COX2 COX3 COX4I COX5A	COX6A1 COX6B1 COX6C COX7A2	COX7A2L COX7C
Complex V	ATP6 ATP5A1 ATP5B ATP5C1 ATP5D	ATP5E ATP5F1 ATP5H ATP5I ATP5J2	ATP5L ATP5O ATP5S ATPIF1	ATP6 ATP5A1 ATP5B ATP5C1 ATP5D	ATP5F1 ATP5H ATP5I ATP5J ATP5J2	ATP5L ATP5O ATP5S ATP5SL	ATP6 ATP8 ATP5A1 ATP5B ATP5C1	ATP5D ATP5E ATP5F1 ATP5H ATP5I	ATP5J ATP5L ATP5O ATP5S ATP5SL
Assembly factors	NDUFAF1 NDUFAF2 NDUFAF3 NDUFAF4 TIMMDC1	UQCC1 UQCC2 COA1 COA3	COX20 SCO1 SCO2 <i>BCS1L</i>	NDUFAF1 NDUFAF2 NDUFAF3 NDUFAF4 TIMMDC1	UQCC1 UQCC2 COA1 COA3	COX11 <i>COX20</i> SCO1 SCO2	NDUFAF1 NDUFAF2 NDUFAF3 NDUFAF4 TIMMDC1	UQCC1 UQCC2 COA1 COA3 COA7	COX11 COX20 SCO1 SCO2

*For column 1 (ANT1) and column 2 (ANT2), proteins identified in low stringency IPs are indicated in regular font while those identified only in the high stringency IPs are in italics. Bolded proteins are identified in both low and high stringency iterations.

**Coverage: For complex I subunits: ANT1 low, 35/44; ANT1 high, 6/44; ANT2 low, 33/44; ANT2 high, 36/44; Both, 35/44. For complex II subunits: ANT1 low, 3/4; ANT1 high, 1/4; ANT2 low, 3/4; ANT2 high, 3/4; Both, 3/4. For complex III subunits: ANT1 low, 7/10; ANT1 high, 2/10; ANT2 low, 8/10; ANT2 high, 9/10; Both, 8/10. For complex IV subunits: ANT1 low, 11/19; ANT1 high, 2/19; ANT2 low, 10/19; ANT2 high, 10/19; Both, 11/19. For complex V subunits: ANT1 low, 14/19; ANT1 high, 1/19; ANT2 low, 14/19; ANT2 high, 11/19; Both, 15/19. For associated assembly factors: ANT1 low, 15/40; ANT1 high, 5/40; ANT2 low, 15/40; ANT2 high, 13/40; Both, 16/40. Gene families from HUGO Gene Nomenclature Committee were used to determine coverage.

***Only hits that have a heavy/light ratio of >0 are shown here.

Table S2 – Mitochondrial carriers identified to interact with ANT1, ANT2, or ANT1 and ANT2.

ANT1	ANT2	ANT2vsANT1
SLC25A1	SLC25A1	SLC25A1
SLC25A3	SLC25A3	SLC25A3
SLC25A10	SLC25A10	SLC25A10
SLC25A11	SLC25A11	SLC25A11
SLC25A12	SLC25A12	SLC25A12
SLC25A13	SLC25A13	SLC25A13
SLC25A18	SLC25A14	SLC25A15
SLC25A19	SLC25A15	SLC25A19
SLC25A20	<i>SLC25A18</i>	SLC25A20
SLC25A21	SLC25A19	SLC25A21
<i>SLC25A23</i>	SLC25A20	SLC25A22
SLC25A24	SLC25A21	SLC25A24
SLC25A25	SLC25A22	SLC25A25
	SLC25A24	SLC25A44
	SLC25A25	
	SLC25A32	
	SLC25A33	

*For column 1 (ANT1) and column 2 (ANT2), proteins identified in low stringency IPs are indicated in regular font while those identified only in the high stringency IPs are in italics. Bolded proteins are identified in both low and high stringency iterations. Note that SLC25A4, SLC25A5, and SLC25A6, corresponding to ANT1, ANT2, and ANT3 respectively, are identified in all experimental runs but not noted here in the table.

**Only hits that have a heavy/light ratio of >0 are shown here.

Table S3 – Mitochondrial proteins identified via mass spectrometry to interact with ANT1, ANT2, or ANT1 and ANT2. All the hits identified in each of the five experimental iterations are noted in separate sheets in one Excel file: ANT1 low, ANT1 high, ANT2 low, ANT2 high, and ANT2vsANT1. In the final iteration, eluates from CNAP-ANT1 (unlabeled) and CNAP-ANT2 (labeled) high stringency IPs were used as input material.