

FIGURE CAPTIONS

Caption : Suppl. Fig. 1.

Protein profiles (after SDS-PAGE and CBB staining) of whole lysates (WL) and microdomain-enriched fractions (MD) prepared from kidney tissues of three different patients, after nephrectomy. A, ANK (adjacent normal kidney) R, RCC(renal cell carcinoma).

Caption : Suppl. Table 1.

List of proteins identified by LC-ESI-MS/MS in MD fractions from ANK tissue

Caption : Suppl. Table 2. Table 2:

List of proteins identified by LC-ESI-MS/MS in MD fractions from RCC tissue

Patient 1

Patient 2

Patient 3

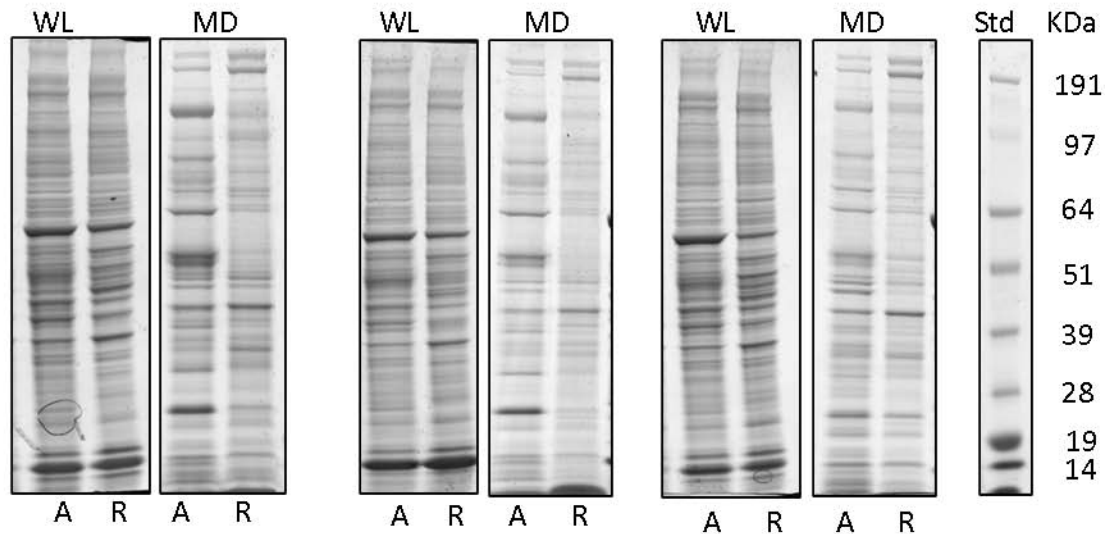


Table S1: Proteins identified by LC-ESI-MS/MS in MD fractions from ANK tissue

BAND #	NAME	ACCESSION CODE	MASS (Da)	MASCOT SCORE	COVERAGE (%)	MATCHED PEPTIDES	LOCALIZATION
1	Cytochrome c oxidase polypeptide 7A1	P24310	9169	274	29	3	MD/MITO
1	Cytochrome c oxidase polypeptide 7A2	P14406	9390	42	27	15	MD/MITO
1	Guanine nucleotide-binding protein G(I)/G(S)/G(O) subunit gamma-12	Q9UBI6	8115	116	15	1	MD/PM
2	Cytochrome b-c1 complex subunit 8	O14949	9900	53	25	3	OTHER(MITO)
2	Cytochrome c oxidase polypeptide Vic	P09669	8776	216	34	13	MEMBRANE MITO
2	Cytochrome c oxidase subunit VIb isoform 1	P14854	10414	39	54	13	MEMBRANE MITO
2	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 4	O00483	9421	217	37	8	MD/MITO
2	Sodium/potassium-transporting ATPase gamma chain	P54710	7336	49	21	2	MEMBRANE
3	Cytochrome c oxidase subunit 7A-related protein	O14548	12664	40	11	1	MD/MITO
4	Cytochrome c oxidase subunit 5B, mitochondrial	P10606	13915	41	18	6	MD/MITO
5	Cytochrome b-c1 complex subunit 7	P14927	13522	55	45	6	MD/MITO
5	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 5	Q16718	13507	115	8	1	MD/MITO
5	NADH dehydrogenase [ubiquinone] iron-sulfur protein 5	O43920	12737	331	35	22	MD/MITO
6	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 6	P56556	15127	66	32	5	MD/MITO
6	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 7	O95182	12601	41	30	5	MD/MITO
6	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 4	O95168	15256	58	36	7	MD/MITO
6	V-type proton ATPase subunit G 1	O75348	13863	178	25	4	MD/PM
8	Cytochrome c oxidase subunit 4 isoform 1	P13073	19621	45	34	8	MD/MITO
8	Microsomal glutathione S-transferase 3	O14880	16734	46	9	1	MEMBRANE
8	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 13	Q9P0J0	16688	275	38	7	MD/MITO
10	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 12	Q9UI09	17104	44	14	3	MD/MITO
10	RasGAP-activating-like protein 1	O95294	90852	49	2	2	MEMBRANE
11	Transcription initiation factor TFIID subunit 4B	Q92750	91832	118	14	3	OTHER(CYTOPLASM)
12	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 8	O95169	21865	47	11	4	MEMBRANE MITO
16	Cytochrome c oxidase subunit 2	P00403	25719	182	7	4	MEMBRANE MITO
17	Alpha-crystallin B chain	P02511	20146	150	16	3	OTHER(CYTOPLASM)
17	Caveolin-1	Q03135	20630	52	30	7	MD/PM
17	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 10	O96000	21048	61	12	3	MEMBRANE MITO
19	Aquaporin-1	P29972	28736	42	14	9	MD/PM
19	Cytochrome b-c1 complex subunit Rieske	P47985	29934	44	16	12	MD/MITO
19	NADH dehydrogenase [ubiquinone] flavoprotein 2	P19404	27659	97	9	4	MD/MITO

BAND #	NAME	ACCESSION CODE	MASS (Da)	MASCOT SCORE	COVERAGE (%)	MATCHED PEPTIDES	LOCALIZATION
21	NADHdehydrogenase[ubiquinone]iron-sulfurprotein3	O75489	30337	73	2	1	MD/MITO
24	Thy-1membranglycoprotein	P04216	18151	37	10	3	MD/PM
24	V-typeprotonATPasesubunitD	Q9Y5K8	28245	65	13	6	MD/PM
24	V-typeprotonATPasesubunitE1	P36543	26186	39	25	6	MD/PM
25	Coiled-coil-helix-coiled-coil-helixdomain-containingprotein3	Q9NX63	26421	92	14	4	OTHER(MITO)
25	Erythrocyteband7integralmembraneprotein	P27105	31882	78	15	5	MD/PM
25	Tricarboxylatetransportprotein	P53007	34333	65	2	6	MEMBRANEMITO
25	Voltage-dependentanion-selectivechannelprotein3	Q9Y277	30981	67	14	4	MD/MITO
26	Prohibitin-2	Q99623	33276	95	1	4	MD/MITO
26	Voltage-dependentanion-selectivechannelprotein1	P21796	30868	53	8	4	MD/MITO
28	Guaninenucleotide-bindingproteinG(I)/G(S)/G(T)subunitbeta-1	P62873	38151	104	11	6	MD/PM
28	NADHdehydrogenase[ubiquinone]lalphasubcomplexsubunit9	Q16795	42654	116	16	12	MD/MITO
28	Voltage-dependentanion-selectivechannelprotein2	P45880	32060	84	4	1	MD/MITO
29	NADHdehydrogenase[ubiquinone]lalphasubcomplexsubunit10	O95299	41067	46	22	9	OTHER(MITO)
29	V-typeprotonATPasesubunit1	P61421	40759	62	25	18	MEMBRANE
30	Guaninenucleotide-bindingproteinG(i),alpha-2subunit	P04899	40995	202	5	2	MD/PM
30	Hydroxyacidoxidase2	Q9NYQ3	39384	56	21	6	OTHER(PEROXISOME)
30	Stomatin-likeprotein2	Q9UIZ1	38534	56	2	7	MD/PM
31	Actin,cytoplasmic2	P63261	42108	145	34	23	OTHER(CYTOPLASM)
31	Erlin-1	O75477	39072	557	6	2	MD/PM
31	V-typeprotonATPasesubunitC1	P21283	44085	67	26	12	MD/PM
32	Cytochromeb-c1complexsubunit2	P22695	48584	83	35	28	MD/MITO
32	Isocitratehydrogenase[NADP]	P48735	51333	653	2	2	OTHER(MITO)
32	NADHdehydrogenase[ubiquinone]iron-sulfurprotein2	O75306	52911	79	24	16	MD/MITO
33	Flotillin-2	Q14254	41830	107	5	3	MD/PM
33	Trifunctionalenzymesubunitbeta	P55084	51547	88	12	5	OTHER(MITO)
34	ATPsynthasesubunitbeta	P06576	56525	47	7	3	MD/MITO
34	Cytochromeb-c1complexsubunit1	P31930	53297	379	7	4	MD/MITO
34	Dipeptidase1	P16444	46101	45	25	13	MD/PM
34	Elongationfactor1-alpha1	P68104	50451	95	4	2	OTHER(CYTOPLASM)
34	Flotillin-1	O75955	47554	135	9	3	MD/PM
34	NADHdehydrogenase[ubiquinone]flavoprotein1	P49821	51469	122	33	27	MD/MITO
35	Dihydrolipoyldehydrogenase	P09622	54713	45	15	7	OTHER(MITO)
35	Ectonucleotidepyrophosphatasefamilymember6	Q6UWR7	50241	202	2	1	MEMBRANE
35	Vacuolarproteinorting-associatedprotein4A	Q9UN37	49152	33	4	2	MEMBRANE

BAND #	NAME	ACCESSION CODE	MASS (Da)	MASCOT SCORE	COVERAGE (%)	MATCHED PEPTIDES	LOCALIZATION
35	V-typeprotonATPasesubunitH	Q9UII2	56417	66	30	12	MD/PM
36	ATPsynthasesubunitalpha	P25705	59828	54	17	9	MD/MITO
36	Basigin	P35613	42573	52	3	1	MD/PM
36	UDP-glucuronosyltransferase2B7	P16662	61168	82	5	3	MEMBRANE
36	V-typeprotonATPasesubunitB	P15313	57196	86	13	7	MD/PM
37	V-typeprotonATPasesubunitB	P21281	56807	54	8	3	MD/PM
39	Dyneinheavychain7	Q8WXX0	461142	90	0	2	CYTOSKELETON
39	Sodium/glucosecotransporter2	P31639	73932	46	4	1	MEMBRANE
40	ATP-bindingcassettesub-familyDmember3	Q99758	75941	42	4	2	MEMBRANE
40	Iodotyrosinedehalogenase1	Q6PHW0	33510	60	2	1	MEMBRANE
40	Verylong-chainspecificacyl-CoAdehydrogenase	P49748	70745	57	7	7	OTHER(MITO)
42	Calcium-bindingmitochondrialcarrierproteinAralar2	Q9UJS0	74528	51	21	15	OTHER(MITO)
42	Sodium-coupledmonocarboxylatetransporter2	Q1EHB4	68629	40	2	1	MEMBRANE
42	V-typeprotonATPasecatalyticsubunitA	P38606	68660	88	21	21	MD/PM
43	Alkalinephosphatase,tissue-nonspecificisozyme	P05186	57611	41	5	4	MD/PM
43	NADH-ubiquinoneoxidoreductase75kDasubunit	P28331	80443	113	35	6	MD/MITO
45	Mitochondrialinnermembraneprotein	Q16891	84026	224	5	4	OTHER(MITO)
45	V-typeprotonATPase116kDasubunitaisoform1	Q93050	97148	57	3	3	MD/PM
45	Xaa-Proaminopeptidase2	O43895	76090	46	6	6	MEMBRANE
46	Sodium/potassium-transportingATPasesubunitalpha-1	P05023	114135	40	23	39	MEMBRANE
46	Uromodulin	P07911	72451	76	7	3	MD/PM
47	Desmoplakin	P15924	334021	45	1	4	CYTOSKELETON
47	Potassium-transportingATPasealphachain1	P20648	115756	107	26	19	MEMBRANE
48	Angiotensin-convertingenzyme	Q9BYF1	92860	38	1	1	MEMBRANE
48	Dipeptidylpeptidase	P27487	88907	78	10	12	MD/PM
48	NAD(P)transhydrogenase,mitochondrial	Q13423	114564	60	5	7	OTHER(MITO)
49	GTP-bindingprotein2	Q9BX10	66468	45	1	1	MD/PM
51	AminopeptidaseN	P15144	109870	103	9	10	MD/PM
51	Myosin-VI	Q9UM54	150965	91	3	3	OTHER(GOLGI)
54	Myosin-9	P35579	227646	105	7	16	CYTOSKELETON
56	Maltase-glucoamylase	O43451	211031	147	1	2	MD/PM
57	Cubilin	O60494	407195	45	4	17	MD/PM

Table S2: Proteins identified by LC-ESI-MS/MS in MD fractions from RCC tissue

BAND #	NAME	ACCESSION CODE	MASS (Da)	MASCOT SCORE	COVERAGE (%)	MATCHED PEPTIDES	LOCALIZATION
1	Neutrophil defensin 1	P59665	10536	44	19	3	OTHER(SECRETED)
2	Cytochrome c oxidase polypeptide 7A1, mitochondrial	P24310	9169	50	16	2	MD/MITO
2	Cytochrome c oxidase polypeptide 7A2, mitochondrial	P14406	9390	86	27	4	MD/MITO
3	Cytochrome c oxidase polypeptide VIc	P09669	8776	66	32	6	MD/MITO
3	Cytochrome c oxidase subunit VIb isoform 1	P14854	10414	49	24	3	MD/MITO
3	Protein S100-A8	P05109	10885	41	11	1	MEMBRANE
4	Cytochrome c oxidase subunit 5A, mitochondrial	P20674	16923	41	16	3	MD/MITO
4	Cytochrome c oxidase subunit 5B, mitochondrial	P10606	13915	45	18	4	MD/MITO
5	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 5	Q16718	13507	84	8	1	MD/MITO
7	CD59 glycoprotein	P13987	14795	44	6	1	MD/PM
8	Cytochrome c oxidase subunit 4 isoform 1	P13073	19621	100	30	11	MD/MITO
8	Hemoglobin subunit beta	P68871	16102	71	21	3	OTHER(CYTOPLASM)
8	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 13	Q9P0J0	16688	44	20	4	MD/MITO
9	Microsomal glutathione S-transferase 3	O14880	16734	90	9	2	MEMBRANE
9	Protein MAL2	Q969L2	19341	35	6	1	MD/PM
10	Transcription initiation factor TFIID subunit 4B	Q92750	91832	71	4	4	OTHER(CYTOPLASM)
16	Cytochrome c oxidase subunit 2	P00403	25719	60	4	2	MD/MITO
17	Alpha-crystallin B chain	P02511	20146	99	20	6	OTHER(CYTOPLASM)
17	Caveolin-1	Q03135	20630	107	30	7	MD/PM
17	Ras-related protein Rab-1B	Q9H0U4	22171	67	19	4	MD/PM
18	NADH dehydrogenase [ubiquinone] flavoprotein 2	P19404	27659	115	14	6	MD/MITO
19	Aquaporin-1	P29972	28736	121	13	5	MD/PM
19	Cytochrome b-c1 complex subunit Rieske	P47985	29934	92	16	10	MD/MITO
20	Actin 1	P63267	42052	48	30	30	CYTOSKELETON
21	NADH dehydrogenase [ubiquinone] iron-sulfur protein 3	O75489	30337	66	9	3	MEMBRANE MITO
22	Coiled-coil-helix-coiled-coil-helix domain-containing protein 3	Q9NX63	26421	41	8	4	OTHER(MITO)
24	Prohibitin	P35232	29843	88	19	5	MD/MITO
24	Thy-1 membrane glycoprotein	P04216	18151	46	14	2	MD/PM
25	Putative uncharacterized protein LOC439951	Q8NDZ9	22292	44	6	1	OTHER(UNKNOWN)
25	Voltage-dependent anion-selective channel protein 3	Q9Y277	30981	45	10	3	MD/MITO

BAND #	NAME	ACCESSION CODE	MASS (Da)	MASCOT SCORE	COVERAGE (%)	MATCHED PEPTIDES	LOCALIZATION
26	Voltage-dependent anion-selective channel protein 1	P21796	30868	66	19	6	MD/MITO
27	Prohibitin-2	Q99623	33276	87	11	4	MD/MITO
28	60S acidic ribosomal protein P0-like	Q8NHW5	34364	52	3	1	OTHER(CYTOPLASM)
28	Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-1	P62873	38151	108	27	9	MD/PM
28	Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-2	P62879	38048	90	23	12	MD/PM
28	Voltage-dependent anion-selective channel protein 2	P45880	32060	51	18	5	MD/MITO
29	Glyceraldehyde-3-phosphate dehydrogenase	P04406	36201	42	10	4	MD/PM
30	Guanine nucleotide-binding protein G(i), alpha-2 subunit	P04899	40995	108	21	8	MD/PM
30	V-type proton ATPase subunit d 1	P61421	40329		11	3	MD/PM
31	Erlin-2	Q94905	38044	155	17	8	MD/PM
32	Cytochrome b-c1 complex subunit 2	P22695	48584	109	23	9	MD/MITO
32	NADH dehydrogenase [ubiquinone] iron-sulfur protein 2	O75306	52911	47	5	2	MD/MITO
34	Cytochrome b-c1 complex subunit 1	P31930	52645	71	4	2	MD/MITO
34	Flotillin-1	O75955	47554	341	27	13	MD/PM
34	Flotillin-2	Q14254	41830	428	37	18	MD/PM
34	NADH dehydrogenase [ubiquinone] flavoprotein 1, mitochondrial	P49821	51469	95	25	14	MD/MITO
34	Solute carrier family 2, facilitated glucose transporter member 1	P11166	54083	133	1	1	MD/PM
34	Tubulin alpha-1A chain	Q71U36	50788	114	5	2	CYTOSKELETON
35	Basigin	P35613	42573	25	2	1	MD/PM
35	Cell cycle control protein 5	Q9NV96	41057	31	2	1	MEMBRANE
35	Dihydrolipoyl dehydrogenase	P09622	54713	88	9	5	OTHER(MITO)
35	Ig gamma-1 chain C region	P01857	36596	49	7	2	OTHER(CYTOPLASM)
35	Monocyte differentiation antigen CD	P08571	40678	26	2	1	MEMBRANE
35	Sorting and assembly machinery component 50	Q9Y512	52342	53	12	7	MEMBRANE MITO
35	Tubulin beta-2C chain	P68371	50255	44	11	5	CSK
36	14-3-3 protein gamma	P61981	28456	75	27	12	OTHER(CYTOPLASM)
36	ATP synthase subunit alpha	P25705	59828	256	18	9	MEMBRANE MITO
36	HLA class II histocompatibility antigen	Q5Y7A7	30331	105	15	4	MEMBRANE
36	Metaxin-2	O75431	30086	60	11	3	MEMBRANE MITO
36	Protein ERGIC-53	P49257	57798	51	6	4	MEMBRANE
36	Tyrosine-protein kinase Lyn	P07948	58993	102	8	4	MEMBRANE
36	Vimentin	P08670	53676	153	4	2	CYTOSKELETON
36	V-type proton ATPase subunit B	P15313	57196	83	9	5	MD/PM
37	Myeloperoxidase	P05164	84784	100	7	5	OTHER(LYSOME)
38	Pyruvate kinase isozymes R/L	P30613	62191	75	4	2	OTHER(CYTOPLASM)

BAND #	NAME	ACCESSION CODE	MASS (Da)	MASCOT SCORE	COVERAGE (%)	MATCHED PEPTIDES	LOCALIZATION
38	Radixin	P35241	68635	57	12	13	MD/PM
39	Ezrin	P15311	69484	83	7	6	MD/PM
41	Serum albumin	P02768	71317	340	8	7	OTHER(SECRETED)
41	V-type proton ATPase catalytic subunit A	P38606	68660	60	14	12	MD/PM
42	Calcium-binding mitochondrial carrier protein Aralar1	O75746	75114	114	11	10	MEMBRANE MITO
42	Calcium-binding mitochondrial carrier protein Aralar2	Q9UJS0	74528	233			MEMBRANE MITO
44	Moesin	P26038	67892	65	13	9	MD/PM
44	NADH-ubiquinone oxidoreductase 75 kDa subunit	P28331	80443	113	14	8	MD/MITO
44	Platelet glycoprotein 4	P16671	53589	84	8	6	MD/PM
45	Band 3 anion transport protein	P02730	102013	63	2	2	MD/PM
45	Mitochondrial inner membrane protein	Q16891	84026	144	15	17	MEMBRANE MITO
45	V-type proton ATPase 116 kDa subunit a isoform 4	Q9HBG4	97207	86	5	4	MD/PM
46	Sodium/potassium-transporting ATPase subunit alpha-1	P05023	114135	43	19	26	MEMBRANA
47	Catenin alpha-1	P35221	100693	76	6	7	MEMBRANE
48	Dipeptidyl peptidase 4	P27487	88907	41	4	4	MD/PM
50	Aminopeptidase N	P15144	109870	147	15	18	MD/PM
50	Ceruloplasmin	P00450	122983	79	6	7	OTHER(SECRETED)
50	Ectonucleotide pyrophosphatase family member 3	O14638	101998	51	3	3	MEMBRANE
50	Multidrug resistance protein 1	P08183	141772	41	1	2	MD/PM
50	Netrin-G1	Q9HCJ2	72702	42	2	3	MEMBRANE
50	Voltage-dependent calcium channel subunit alpha-2/delta-1	P54289	124246	49	0	1	MD/PM
54	Myosin-10	P35580	229827	75	5	13	OTHER(CYTOPLASM)
54	Myosin-11	P35749	228054	123	3	12	OTHER(CYTOPLASM)
54	Myosin-14	Q7Z406	228889	144	2	9	OTHER(CYTOPLASM)
54	Myosin-9	P35579	227646	575	20	53	CYTOSKELETON
55	Filamin-A	P21333	283301	51	2	4	CYTOSKELETON
55	Spectrin alpha chain, brain	Q13813	285163	61	9	18	CYTOSKELETON
56	Plectin-1	Q15149	533462	44	3	13	CYTOSKELETON