

Supplementary Information

Isolation and identification of proteins secreted by cells cultured within synthetic hydrogel-based matrices

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Table S1: Complete list of proteins identified by shotgun proteomics.

Table S2: List of unnamed or hypothetical proteins identified by BLAST search.

Table S1: Complete list of proteins identified by shotgun proteomics. Large proteins isolated from decellularized samples were identified, with high confidence (>95%) specified for database searches. Accession numbers of unnamed and hypothetical proteins were BLAST searched and matches were identified (Supplementary Table 2).

Sample Number	Accession Number	Protein Name
1	gi 4502027	serum albumin preproprotein
1	gi 23307793	serum albumin
1	gi 189054552	unnamed protein product
1	gi 119626071	albumin, isoform CRA_h
2	gi 31874109	hypothetical protein
3	gi 62896523	vimentin variant
3	gi 340219	vimentin
3	gi 21757045	unnamed protein product
3	gi 167887751	vimentin variant 3
3	gi 16552261	unnamed protein product
4	gi 55743106	collagen alpha-3(VI) chain isoform 5 precursor
4	gi 55743098	collagen alpha-3(VI) chain isoform 1 precursor
4	gi 530371361	collagen alpha-3(VI) chain isoform X2
4	gi 530371359	collagen alpha-3(VI) chain isoform X1
4	gi 240255535	collagen alpha-3(VI) chain isoform 4 precursor
4	gi 219841772	COL6A3 protein
4	gi 219521324	COL6A3 protein
4	gi 119591516	collagen, type VI, alpha 3, isoform CRA_h
4	gi 119591513	collagen, type VI, alpha 3, isoform CRA_e
4	gi 119591511	collagen, type VI, alpha 3, isoform CRA_c
5	gi 49457374	HIST1H4F
5	gi 45767731	HIST1H4I protein
5	gi 119575948	histone 1, H4e
5	gi 119575932	histone 1, H4c
6	gi 62897625	beta actin variant
7	gi 73909156	Annexin A2
7	gi 34364597	hypothetical protein
7	gi 18645167	Annexin A2
8	gi 62087582	H2A histone family, member V isoform 1 variant

9	gi 73762521	delta-globin Troodos variant
9	gi 71727231	beta globin
9	gi 6003534	hemoglobin beta subunit variant
9	gi 6003532	hemoglobin beta subunit variant
9	gi 4504349	hemoglobin subunit beta
9	gi 4378804	hemoglobin beta chain
9	gi 40886941	hemoglobin beta
9	gi 29446	unnamed protein product
9	gi 26892090	beta globin chain variant
9	gi 256028940	beta-globin
9	gi 187940241	hemoglobin beta chain variant
9	gi 18462105	delta-globin
9	gi 18418633	mutant beta-globin
9	gi 179409	beta-globin
9	gi 13549112	beta globin chain variant
10	gi 87196339	collagen alpha-1(VI) chain precursor
11	gi 49456871	TUBB
11	gi 332246227	tubulin beta-2B chain isoform 2
11	gi 27227551	class II beta tubulin isotype
11	gi 189069169	unnamed protein product
14	gi 189053217	unnamed protein product
15	gi 156104889	protein AF-9 isoform a
16	gi 21739834	hypothetical protein
17	gi 258690785	estrogen receptor alpha 3*,4,5,6,7,8*/1068 isoform, partial
18	gi 68533107	MYH10 variant protein
18	gi 641958	non-muscle myosin B
18	gi 530410345	myosin-10 isoform X3
18	gi 530410343	myosin-10 isoform X2
18	gi 367460090	myosin-10 isoform 3
18	gi 367460087	myosin-10 isoform 2
18	gi 119610456	myosin, heavy polypeptide 10, non- muscle, isoform CRA_c, partial
18	gi 109734611	Myosin, heavy chain 10, non- muscle
19	gi 2330597	MHC class I antigen
20	gi 74099694;	sulfite oxidase, mitochondrial
20	gi 530400755	sulfite oxidase, mitochondrial isoform X1

Table S2: List of unnamed or hypothetical proteins identified by BLAST search. Accession numbers of unnamed and hypothetical proteins were BLAST searched and the top five hits for searches are reported above. Sample numbers 1, 3, 7, 9, 11, which had other top hits identified with shotgun analysis, were confirmed by BLAST search. Samples 2, 14, and 16, which did not have other hits identified with shotgun analysis were identified as fibronectin, peroxiredoxin, and AP-5, respectively.

Sample Number	Accession Number	Accession Number, Protein Name
1	gi 189054552	gi 4502027, serum albumin preproprotein gi 28592, serum albumin gi 23307793, serum albumin gi 6013427, serum albumin precursor gi 28590, unnamed protein product
2	gi 31874109	gi 34364820, hypothetical protein gi 119590949, fibronectin 1, isoform CRA_n gi 16933542, fibronectin isoform 3 preproprotein gi 119590945, fibronectin 1, isoform CRA_j gi 530370043, fibronectin isoform X9
3	gi 21757045	gi 62414289, vimentin gi 62896523, vimentin variant gi 340219, vimentin gi 47115317, VIM gi 167887751, vimentin variant 3
7	gi 34364597	gi 50845388, annexin A2 isoform 1 gi 73909156, Annexin A2 gi 4757756, annexin A2 isoform 2 gi 18645167, Annexin A2 gi 16306978, Annexin A2
9	gi 29446	gi 23268449, hemoglobin beta chain variant Hb S-Wake gi 71727231, beta globin gi 4504349, hemoglobin subunit beta gi 229959, Chain B, Refined Crystal Structure of Deoxyhemoglobin S. I. Restrained Least-Squares Refinement at 3.0-Angstroms Resolution gi 26892090, beta globin chain variant
11	gi 189069169	gi 4507729, tubulin beta-2A chain isoform 1 gi 27227551, class II beta tubulin isotype gi 21746161, tubulin beta-2B chain

		gi 49456871, TUBB gi 223486, tubulin beta
14	gi 189053217	gi 4505591, peroxiredoxin-1 gi 973743966, Chain A, Human Peroxiredoxin-1 C83s Mutant gi 164519504, Chain A, Crystal Structure of Human Peroxiredoxin I In Complex With Sulfiredoxin gi 440306, enhancer protein gi 260656338, Chain A, Crystal Structure of Sulfiredoxin In Complex with Peroxiredoxin I And Atp:mg2+
16	gi 21739834	gi 379317153, AP-5 complex subunit beta-1 gi 119594844, DKFZp761E198 protein, isoform CRA_b gi 10732604, unknown gi 114325483, DKFZp761E198 protein gi 119594843, DKFZp761E198 protein, isoform CRA_a