Supplementary Table 1. Summarized data of identification of major proteins of placenta exosomes (first peak after gel filtration) using MALDI mass spectrometry of proteins hydrolyzates after 2D-electrophoresis (Fig. 5B) and after SDS-PAGE of four different preparations (Figs 4A and 5A)

Bands and sports used for proteins identification	Identified proteins	Mr(exper.)	Mr(calc)	Score	Unique (U)	Peptide subjected to MS/MS[a]
Analysis of proteins after 2D-electrophoresis						
Protein spot: 1	**Hemoglobin alpha-subunit**	1528.63 1832.74 2995.17	1528.73 1832.88 2995.48	174>40	U	K.VGAHAGEYGAEALER.M K.TYFPHFDLSHGSAQVK.G K.VADALTNAVAHVDDMPNALSALSDL HAHK.L
	Hemoglobin beta-subunit	1125.67 1273.85 1377.82 1669.03	1125.57 1273.72 1377.69 1668.88	132>40	U U U	K.LHVDPENFR.L R.LLVVYPWTQR.F K.EFTPPVQAAYQK.V K.VLGAFSDGLAHLDNLK.
Protein spots: 2, 3, and 4	**Annexin A2**	1034.63 1085.59 1110.67 1224.70 1243.75 1420.83 1459.83 1542.01 1908.09	1034.52 1085.67 1110.55 1224.56 1243.62 1420.69 1459.67 1541.84 1907.9	110>40	 U U U	K.WISIMTER.S K.VLIRIMVSR.S R.QDIAFAYQR.R K.DIISDTSGDFR.K R.TNQELQEINR.V K.SLYYYIQQDTK.G K.SYSPYDMLESIR.K K.GVDEVTIVNILTNR.S R.AEDGSVIDYELIDQDAR.D
Protein spots: 5, 6, and 7	**Annexin A5**	953.69 1000.77 1013.67 1051.64 1105.78 1119.19 1126.89 1154.62 1801.91	953.53 1000.59 1013.51 1051.55 1105.58 1119.59 1126.69 1154.60 1801.86	121>40	 U U U	K.FITIFGTR.S K.VLTEIIASR.T R.LYDAYELK.H K.SELTGKFEK.L + Methyl (C-term) R.SEIDLFNIR.K R.SEIDLFNIR.K + Methyl (C-term) K.LIVALMKPSR.L K.GAGTDDHTLIR.V K.YMTISGFQIEETIDR.E
Protein spot: 8	**Annexin A1**	1261.65 1370.71 1549.87 1738.79	1261.59 1370.76 1549.81 1738.73	51>40	 U U	K.TPAQFDADELR.A K.VLDLELKGDIEK.C K.GTDVNVFNTILTTR.S R.SEDFGVNEDLADSDAR.A
Protein spots: 9, 10, 11, 12, 13,14, and 15	**Actin, cytoplasmic**	 1197.89 1514.97 1790.14 1953.33 2214.39 2342.49 3183.04	 1197.69 1514.74 1789.88 1953.06 2214.06 2342.16 3182.61	196>40	U U U U U U	R.AVFPSIVGRPR.H K.IWHHTFYNELR.V K.SYELPDGQVITIGNER.F R.VAPEEHPVLLTEAPLNPK.A K.DLYANTVLSGGTTMYPGIADR.M R.KDLYANTVLSGGTTMYPGIADR.M R.TTGIVMDSGDGVTHTVPIYEGYALPH AILR.L
Protein spots: 16, 17, and 18	**Heavy chains of IgGs[b]**	1790.00 1028.64 1773.13 1599.89	1789.93 1028.58 1773.00 1599.77	96>40	U	K.VSVFVPPRDGFFGNPR.K R.QIQVSWLR.E K.GVALHRPDVYLLPPAR.E K.YVTSAPMPEPQAPGR.Y
Protein spots: 19, 20, 21, 22, and 23	**Alkaline phosphatase, placental type**	1086.63 1127.72 1304.84 1450.82 1623.97 1950.89 2368.39 3233.91	1086.49 1127.58 1304.68 1450.65 1623.78 1950.86 2368.13 3233.56	308>40	U U U U U U U U	R.IDHGHHESR.A R.GFFLFVEGGR.I K.GNFQTIGLSAAAR.F R.NWYSDADVPASAR.Q R.ALTETIMFDDAIER.A K.DGARPDVTESESGSPEYR.Q R.QQSAVPLDEETHAGEDVAVFAR.G R.AGQLTSEEDTLSLVTADHSHVFSFGGY PLR.G
Protein spots: 24 and 25	**Human serum albumin[b]**	1623.05 1742.16 1853.2 1874.30 1898.29 2044.39 2202.32	1622.78 1741.87 1852.9 1874.01 1897.99 2044.09 2201.99	190>40	U U U U U U U	K.DVFLGMFLYEYAR.R R.HPYFYAPELLFFAK.R R.RPCFSALEVDETYVPK.E K.SLHTLFGDKLCTVATLR.E R.RHPYFYAPELLFFAK.R K.VFDEFKPLVEEPQNLIK.Q K.EFNAETFTFHADICTLSEK.E
Protein spots: 26 and 27	**Serotransferrin**	1208.49 1262.58 1282.49 1477.66 1702.78	1208.56 1262.61 1282.56 1477.72 1702.75	200>40		K.DSGFQMNQLR.G +Methyl(C-term) K.SASDLTWDNLK.G +Methyl(C-term) K.EGYYGYTGAFR.C K.SASDLTWDNLK.G +Methyl(C-term) R.EGTCPEAPTDECKPVK.W

Identification of additional proteins from their analysis after 1D electrophoresis						
Exo-1, spot 2, Fig. 4	Light chain of ferritin[b]	1192.44 1490.58 1590.73 1606.65 1718.90	1192.57 1490.71 1590.88 1606.79 1718.98	80>40		K.MGDHLTNLHR.L R.DDVALEGVSHFFR.E K.LNQALLDLHALGSAR.T R.LGGPEAGLGEYLFER.L K.KLNQALLDLHALGSAR.T
	Heavy chain of ferritin[b]	1152.76 1344.84 1544.94 3278.51	1152.59 1344.62 1544.70 3278.58	75>40		K.ELGDHVTNLR.K K.YFLHQSHEER.E R.QNYHQDSEAAINR.Q R.QINLELYASYVYLSMSYYFDRDDVAL K.N
Exo-1, spot 3, Fig. 4 and spot 3, Fig. 5	CD63	693.27 1100.41 1231.40 1983.79	693.28 1100.46 1231.43 1983.83	79>40	U U	MAVEGGM.K K.VMSEFNNNF.R K.CCGAANYTDWE.K R.VPDSCCIDVTVGCGINFNE.K
Exo-1, spot 4, Fig.4 and spot 3, Fig. 5	CD81	445.28 630.29 695.30 2252.03	445.22 630.21 695.26 2252.03	80>40	U U	K.DQIA.K. K.EDCHQ.K MGVEGCT.K K.QFYDQALQQAVVDDDANNA.K
Exo-1, spot 7, Fig. 4 and spot 10, Fig. 5	Alpha actin 4	949.51 1010.58 1028.63 1091.67 1214.76 1225.76 1298.78 1300.72 1351.75 1420.83 1428.89 1506.84 1624.88	949.43 1010.49 1028.53 1091.56 1214.67 1225.66 1298.66 1300.60 1351.62 1420.70 1428.76 1506.70 1624.72	121>40		R.QGEAEFNR.I K.QQSNEHLR.R R.TIPWLEDR.V K.NFITAEELR.R K.LASDLLEWIR.R K.DGLAFNALIHR.H R.HRPELIEYDK.L K.HTNYTMEHIR.V K.GISQEQMQEFR.A K. GYEEWLLNEIR.R R.TINEVENQILTR.D K.AGTQIENIDEDFR.D K.HEAFESDLAAHQDR.V

[a]MS - determination of a set of peptides from tryptic hydrolysates, MS/MS in accordance with the sequences of peptides (from three to thirteen peptides).

[b]IgGs, HSA and ferritin, unlike other proteins, are not the internal proteins of the exosomes.