

Supplementary Material

Table S1: Hippocampal protein MS-identified in SAMR1 4 month aged.

AC: accession number, to identify the protein from SWISS PROT database; FV: fold variation,

	Protein name	Acronyms	AC	Theoretical Mr _{pI}	Experimental Mr _{pI}	<i>p</i>	PMF/ MS ₂	FV
<i>Up-regulated</i>	Actin-related protein 2/3 complex subunit	ARPC5	Q9CPW4	16335_5.47	16901_5.1	0.004	4/1	0.3±0.02
<i>Down-Regulated</i>	Stathmin (1)	STMN1	P54227	17264_5.76	17158_5.6	6.4x10 ⁻⁶	11/2	0.6±0.1
<i>Down-Regulated</i>	Stathmin (2)	STMN1	P54227	17264_5.76	17406_5.3	7.5x10 ⁻⁷	11/2	1.1±0.08
<i>Down-Regulated</i>	Alpha-soluble NSF attachment protein	SNAA	Q9DB05	33624_5.30	26297_5.1	0.1	8/2	0.7±0.1
<i>Down-Regulated</i>	Inorganic pyrophosphatase	IPYR	Q9D819	33102_5.37	27560_5.3	0.004	14/-	1.7±0.2
<i>Down-Regulated</i>	Annexin A5	ANXA5	P48036	35787_4.83	27098_4.8	0.2	19/1	1.6±0.07
<i>Down-Regulated</i>	EF-hand domain- containing protein D2	EFHD2	Q9D8Y0	26775_5.01	26775_5.01	5.3x10 ⁻⁵	20/2	1.6±0.08
<i>Down-Regulated</i>	Calbindin OS	CALB1	P12658	30203_4.71	23050_4.7	0.004	18/2	0.8±0.2
<i>Down-Regulated</i>	Malate dehydrogenase cytoplasmatic	MDHC	P14152	36659_6.16	27797_5.6	0.009	16/1	1.6±0.15
<i>Down-Regulated</i>	Microfibrillar- associated protein 3- like	MFA3L	Q9D3X9	45769_5.00	26337_6.1	0.1	9/-	0.9±0.17
<i>Down-Regulated</i>	Fatty acid-binding protein, heart	FABPH	P11404	14810_6.11	14560_5.4	3.0x10 ⁻⁴	9/3	1.2±0.05
<i>Down-Regulated</i>	Superoxide dismutase	SODC	P08228	16104_6.02	16104_5.9	6.8x10 ⁻⁴	4/2	1.0±0.08
<i>Down-Regulated</i>	Protein phosphatase 1 regulatory subunit 7	PP1R7	Q3UM45	41380_4.85	34021_4.9	0.01	12/-	0.4±0.1
<i>Down-Regulated</i>	Protein phosphatase 1 regulatory subunit 7	PP1R7	Q3UM45	41380_4.85	33971_4.9	0.02	13/2	0.4±0.1
<i>Down-Regulated</i>	40S ribosomal protein SA	RSSA	P14206	32931_4.80	31644_4.8	0.01	15/3	1.47±0.2
<i>Down-Regulated</i>	Dopachrome decarboxylase	DOPD	O35215	13183_6.09	14213_6.1	0.002	6/3	0.7±0.2

expression level degree. Mr₂: relative molecular mass; PMF/ MS₂: Peptide mass fingerprint/ Mass spectrometry. Statistical significance: *p*<0.001.

Table S2: Hippocampal protein MS-identified in SAMP8 4 month aged.

	Protein name	Acronyms	AC	Theoretical Mr_pI	Experimental Mr_pI	p	PMF/ MS ₂	FV
<i>Up-regulated</i>	Kemiline reductase mu-crystallin	CRYM	O54983	33673_5.44	29128_5.2	8.3x10 ⁻⁸	10/3	2.0±0.2
<i>Up-regulated</i>	Phosphoglycerate mutase 1	PGAM1	Q9DBJ1	28928_6.67	24391_6.3	5.2x10 ⁻⁵	13/3	1.8±0.2
<i>Up-regulated</i>	V-type proton ATPase subunit B, brain isoform	VATB2	P62814	56857_5.57	37762_5.7	0.01	14/2	1.5±0.3
<i>Up-regulated</i>	Dual specificity protein phosphatase 3	DUS3	Q9D7X3	20687_6.07	20633_5.7	7.6x10 ⁻⁴	8/3	0.4±0.2
<i>Up-regulated</i>	Malate dehydrogenase cytoplasmic	MDHC	P14152	36659_6.16	28607_6.2	0.006	16/2	1.8±0.1
<i>Down-regulated</i>	Eukaryotic initiation factor 4A-I	IF4A1	P60843	46125_5.32	34942_5.3	0.007	20/3	2.0±0.05
<i>Down-regulated</i>	Stathmin	STMN1	P54227	17264_5.76	17158_5.6	6.4x10 ⁻⁶	11/2	0.6±0.1
<i>Down-regulated</i>	Stathmin	STMN1	P54227	17264_5.76	17406_5.3	7.5x10 ⁻⁷	11/2	1.1±0.08
<i>Down-regulated</i>	Superoxide dismutase	SODC	P08228	16104_6.02	16104_6.0	0.001	11/2	1.3±0.05
<i>Newly constitutive</i>	Pyridoxal kinase	PDXK	Q8K183	35278_5.88	28997_5.6	0.06	9/2	1.6±0.4

AC: accession number, to identify the protein from SWISS PROT database; FV: fold variation, expression level degree. Mr2: relative molecular mass; PMF/ MS2: Peptide mass fingerprint/ Mass spectrometry. Statistical significance: p<0.001.