

Supplementary Data:

Mass spectrometric analysis was performed on the ~50 kDa protein band from control, suicide, alcoholic, or suicide alcoholic subjects. Matrix-assisted laser desorption ionization-time of flight (MALDI-TOF) mass spectrometry identified twelve tryptic peptides that constituted ~42% coverage of tubulin subtype α 1A. These peptides generated a MOWSE probability score of 117.

The ~50 kDa protein band also liberated fifteen peptides that corresponded to approximately 45 % protein coverage of β -2B-tubulin, and generated a MOWSE probability score of 159. For this MALDI-TOF mass spectrometry analysis a MOWSE score of greater than 66 was considered a significant match ($P < 0.05$) of tryptic peptides to those present within protein databases, to enable confident protein identification.

Tubulin α -1A-chain peptides:

St-End	Observed	Mr (expt)	Mr (calc)	Delta	Sequence
85-96	1410.8100	1409.8027	1409.7667	0.0360	R. QLFHPEQLITGK .E
97-105	1023.4700	1022.4627	1022.4417	0.0210	K. EDAANNYAR .G
113-121	1069.6200	1068.6127	1068.5815	0.0312	K. EIIDPVLDR .I
216-229	1718.8800	1717.8727	1717.8747	-0.0020	R. NLDIERPTYTNLNR .L
230-243	1487.9000	1486.8927	1486.8719	0.0209	R. LISQIVSSITASLR .F
244-264	2409.1900	2408.1827	2408.2012	-0.0185	R. FDGALNVDLTEFQTNLVPYPR .I
265-280	1756.9500	1755.9427	1755.9559	-0.0132	R. IHFPLATYAPVISA EK.A
281-304	2750.4100	2749.4027	2749.2840	0.1188	K. AYHEQLSVAEITNACFEPANQMVK .C
312-320	1249.5700	1248.5627	1248.5453	0.0174	K. YMACCLLYR .G
353-370	1824.9300	1823.9227	1823.9782	-0.0554	K. VGINYPPTVVPGGDLAK .V
374-390	1864.8800	1863.8727	1863.8971	-0.0244	R. AVCMLSNTTAIAEAWAR .L
403-422	2330.0200	2329.0127	2329.0110	0.0018	R. AFVHWYVGEEMEEGEFSEAR .E

The positions of the tryptic peptides detected within the human α -1A-tubulin amino acid sequence are also shown in bold. The position of K-40, the site of acetylation recognised by a mouse monoclonal antibody is underlined.

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1 MRECISIHVG QAGVQIGNAC WELYCLEHGI QPDGQMPSDK TIGGGDDSFN
51 TFFSETGAGK HVPRAVFVDL EPTVIDEVRT GTYRQLFHPE QLITGKEDAA
101 NNYARGHYTI GKEIIDLVLD RIRKLADQCT GLQGFLVFHS FGGGTGSGFT
151 SLLMERLSVD YGKSKLEFS IYPAPQVSTA VVEPYNSILT THTTLEHSDC
201 AFMVDNEAIY DICRRNLDIE RPTYTNLNRL IGQIVSSITA SLRFDGALNV
251 DLTEFQTNLV PYPRIHFPLA TYAPVISAEK AYHEQLSVAE ITNACFEPAN
301 QMVKCDPRHG KYMACCLLYR GDVVPKDVNA AIATIKTKRT IQFVDWCPTG
351 FKVGINYPPT TVVPGGDLAK VQRAVCMLSN TTAIAEAWAR LDHKFDLMYA
401 KRAFVHWYVG EGMEEGEFSE AREDMAALEK DYEYEVGVDV EGEHEEEGEE
451 Y
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Tubulin β -2B-chain peptides:

St-End	Observed	Mr (expt)	Mr (calc)	Delta	Sequence
3-19	1822.9000	1821.8927	1821.9156	-0.0228	R. EIVHIQAGQCGNQIGAK .F
47-58	1355.6800	1354.6727	1354.6517	0.0210	R. INVYNEAAGNK .Y
63-77	1615.8500	1614.8427	1614.8287	0.0140	R. AILVDLEPGTMDSVR .S
78-103	2798.5400	2797.5327	2797.3361	0.1966	R. SGPFGQIFRPDNFVFGQSGAGNNWAK .G
104-121	1958.9300	1957.9227	1957.9745	-0.0518	K. GHYTEGAELVDSVLDVVR .K
155-162	1077.5500	1076.5427	1076.5250	0.0177	K. IREEYPDR .I
157-174	2141.0000	2139.9927	2139.9969	-0.0042	R. EEYPDRIMNTFSVMPSPK .V
217-241	2708.4000	2707.3927	2707.3310	0.0618	K. LTPPTYGDLNHLVSATMSGVTTCLR .F
242-251	1130.6300	1129.6227	1129.5880	0.0347	R. FPGQLNADLR .K
253-262	1143.6500	1142.6427	1142.6270	0.0157	K. LAVNMVPPFR .L
263-276	1620.8600	1619.8527	1619.8283	0.0245	R. LHFFMPGFAPLTSR .G
298-306	1065.4700	1064.4627	1064.4201	0.0426	K. NMMAACDPR .H
310-318	1053.6200	1052.6127	1052.6019	0.0109	R. YLTVAAIIFR .G
351-359	1028.5500	1027.5427	1027.5121	0.0307	K. TAVCDIPPR .G
381-390	1229.6200	1228.6127	1228.5910	0.0217	R. ISEQFTAMFR .R

The positions of the tryptic peptides detected within the human β -2B-tubulin amino acid sequence are also shown in bold:

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1 MREIVHIQAG QCGNQIGAKF WEVISDEHGI DPTGSYHGDS DLQLERINVY
51 YNEAAGNKYV PRAILVDLEP GTMDSVRSGP FGQIFRPDNF VFGQSGAGNN
101 WAKGHYTEGA ELVDSVLDVV RKESESCDCL QGFQLTHSLG GGTGSGMGTL
151 LISKIREEYP DRIMNTFSVM PSPKVSDTVV EPYNATLSVH QLVENTDETY
201 SIDNEALYDI CFRTLKLTP TYGDLNHLVS ATMSGVTTCL RFPGQLNADL
251 RKLAVNMVPPF PRLHFFMPGF APLTSRGSQQ YRALTVPELT QQMFDSKNMM
301 AACDPRHGRY LTVAAIIFRGR MSMKEVDEQM LNVQNKNSY FVEWIPNNVK
351 TAVCDIPPRG LKMSATFIGN STAIQELFKR ISEQFTAMFR RKAFLHWYTG
401 EGMDEMEFTE AESNMNDLVS EYQQYQDATA DEQGEFEEEE GEDEA

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