

**Table S2-** High confidence peptides matching USP9X and FASN in the MS/MS analysis of the 230-kDa band from SEC fraction 7<sup>#</sup>

<b>Protein Name (Accession Number)</b>	<b>Peptide sequence</b>	<b>aa</b>	<b>Ion Score</b>	<b>Ion score C.I. %</b>	<b>Calculated Mass</b>	<b>Observed Mass</b>	<b>Match Error Da</b>	<b>Match Error PPM</b>
<b>USP9X (D3ZXB5_RAT)</b>	FIEELR	555-560	35,20	95,9	806,44	806,45	0,01	7
	HLSFIVR	885-891	43,37	99,4	871,51	871,51	-0,01	-10
	SPHVFYR	593-599	55,80	100	905,46	905,46	0,00	0
	LQYYVPR	1659-1665	49,66	99,9	938,51	938,51	0,01	6
	EYNIGVLR	1638-1645	62,26	100	963,53	963,53	0,01	9
	YQY AELGK	2220-2227	69,83	100	971,48	971,48	0,00	-2
	VLGGSFADQK*	1713-1722	75,36	100	1021,53	1021,55	0,02	16
	FDYDWER*	1800-1806	50,84	99,9	1030,43	1030,43	0,00	0
	EIYTNLGR	795-803	70,58	100	1062,56	1062,56	0,00	2
	DGLFDTIQR	2367-2375	67,02	100	1064,54	1064,53	-0,01	-8
	LYSVVSQ LIR	2228-2237	60,96	100	1177,69	1177,69	0,00	-3
	RFDYDWER*	1799-1806	58,14	100	1186,53	1186,53	0,00	1
	FLFTTG FHTK*	2051-2060	74,46	100	1198,63	1198,61	-0,02	-15
	HSGDYFTLLR	1371-1380	78,42	100	1208,61	1208,60	0,00	-2
	FNDYFEFPR*	1812-1820	70,85	100	1234,55	1234,55	-0,01	-5
	VISSVSY YTHR	361-371	87,89	100	1311,67	1311,66	-0,01	-9
	LLTAIGYGHVR	1157-1168	82,34	100	1312,77	1312,77	0,00	-2
	SGGLPLVLSMLTR	1120-1132	66,23	100	1343,77	1343,78	0,00	3
	HLQVIFGHLAASR	1646-1658	78,52	100	1448,81	1448,81	0,00	-2
	FGTLNGFQILHDR*	228-240	42,14	99,2	1517,79	1517,78	0,00	-1
HGSSEEEEWLTAER	272-385	127,35	100	1659,72	1659,73	0,00	1	
GIPDDR DGLFDTIQR	2361-2375	53,26	99,9	1717,85	1717,85	0,00	0	
FWFAHNVLFNVSNR	2086-2099	76,81	100	1750,88	1750,89	0,00	3	
IELFVG GELIDPGDDRK	932-948	54,33	100	1872,97	1872,97	0,00	2	
<b>FASN (Q3TB22_MOUSE)</b>	DGAWGAFR	1501-1508	123,74	100	879,41	879,41	0,00	3
	LQVVDRPLPVR	374-388	31,11	89,6	1291,78	1291,78	0,00	-4
	SYITGGLGGFGLELAR	1879-1895	28,11	79,2	1723,94	1723,94	0,00	3

<sup>#</sup> aa- amino acid range corresponding to the sequence position of the identified peptide; Ion Score C.I. %- percentage of Ion Score Confidence Interval.

\* Although the MS/MS ion search did not identify USP9Y from any organism, sequence alignment of rat USP9X with mouse USP9Y (the rat USP9Y sequence is presently not available) suggest that some of the peptides assigned to rat USP9X might also be derived from USP9Y. These peptides are marked with an asterisk.