

**Table S2** High-confidence NUSAP1 interactors identified from AP-MS in nocodazole-treated 293T cells

Gene Name	Protein Name	Uniprot ID	Spectral Counts	ctrlCounts	SaintScore	BFDR
<i>NUSAP1</i>	Nucleolar and spindle-associated protein 1	Q9BXS6	1090 1584 1197	0 0 0	1	0
<i>RBMX</i>	RNA-binding motif protein, X chromosome	P38159	382 359 289	19 25 22	1	0
<i>MKI67</i>	Proliferation marker protein Ki-67	P46013	135 117 108	0 0 0	1	0
<i>CHTOP</i>	Chromatin target of PRMT1 protein	Q9Y3Y2	47 147 42	0 0 0	1	0
<i>RPL12</i>	60S ribosomal protein L12	P30050	20 51 46	1 0 0	1	0
<i>H1-2</i>	Histone H1.2	P16403	73 159 95	8 6 13	1	0
<i>HP1BP3</i>	Heterochromatin protein 1-binding protein 3	Q5SSJ5	41 24 40	0 0 0	1	0
<i>STAU1</i>	Double-stranded RNA-binding protein Staufen homolog 1	O95793	20 18 27	0 0 0	1	0
<i>RPS21</i>	40S ribosomal protein S21	P63220	57 27 21	0 1 2	1	0
<i>IGF2BP1</i>	Insulin-like growth factor 2 mRNA-binding protein 1	Q9NZI8	28 13 21	0 0 0	1	0
<i>RPL21</i>	60S ribosomal protein L21	P46778	25 37 33	3 3 4	1	0
<i>THOC4</i>	THO complex subunit 4	Q86V81	29 25 25	5 1 3	1	0
<i>RPS20</i>	40S ribosomal protein S20	P60866	16 21 18	2 0 1	1	0
<i>WTAP</i>	Pre-mRNA-splicing regulator WTAP	Q15007	10 24 22	0 0 0	1	0
<i>EIF6</i>	Eukaryotic translation initiation factor 6	P56537	12 10 16	0 0 0	1	0
<i>HNRNPA0</i>	Heterogeneous nuclear ribonucleoprotein A0	Q13151	9 25 13	0 0 0	1	0
<i>RPL28</i>	60S ribosomal protein L28	P46779	42 53 48	0 5 2	1	0
<i>HNRNPC</i>	Heterogeneous nuclear ribonucleoproteins C1/C2	P07910	22 14 8	0 0 0	1	0
<i>PAIRBP1</i>	Plasminogen activator inhibitor 1 RNA-binding protein 1	Q8NC51	7 19 11	0 0 0	1	0
<i>MRPS28</i>	28S ribosomal protein S28	Q9Y2Q9	8 7 9	0 0 0	1	0

<i>GAR1</i>	H/ACA ribonucleoprotein complex subunit 1	Q9NY12	6 9 9	0 0 1	1	0
<i>RPL35A</i>	60S ribosomal protein L35a	P18077	7 9 6	0 0 1	1	0
<i>RPS28</i>	40S ribosomal protein S28	P62857	14 26 18	3 1 1	1	0
<i>NOP10</i>	H/ACA ribonucleoprotein complex subunit 3	Q9NPE3	6 7 10	0 0 0	1	0
<i>RPS14</i>	40S ribosomal protein S14	P62263	60 161 56	18 23 15	1	0
<i>RPS11</i>	40S ribosomal protein S11	P62280	23 21 16	0 3 3	1	0
<i>CCDC137</i>	Coiled-coil domain-containing protein 137	Q6PK04	8 13 5	0 0 0	1	0
<i>KPNA2</i>	Importin subunit alpha-1	P52292	5 10 10	0 0 0	1	0
<i>PINX1</i>	PIN2/TERF1-interacting telomerase inhibitor 1	Q96BK5	5 31 28	0 0 0	1	0
<i>RPL22</i>	60S ribosomal protein L22	P35268	12 7 5	0 0 0	1	0
<i>DPY30</i>	Protein dpy-30 homolog	Q9C005	4 7 8	0 0 0	1	0
<i>RPLP0P6</i>	60S acidic ribosomal protein P0-like	Q8NHW5	14 4 6	0 0 0	1	0
<i>FUS</i>	RNA-binding protein FUS	P35637	12 23 20	3 3 1	1	0
<i>CBX1</i>	Chromobox protein homolog 1	P83916	3 3 6	0 0 0	1	0
<i>C11orf98</i>	Uncharacterized protein C11orf98	E9PRG8	6 4 3	0 0 0	1	0
<i>H1-0</i>	Histone H1.0	P07305	3 9 5	0 0 0	1	0
<i>NHP2</i>	H/ACA ribonucleoprotein complex subunit 2	Q9NX24	3 12 6	0 0 0	1	0
<i>NOL7</i>	Nucleolar protein 7	Q9UMY1	7 3 4	0 0 0	1	0
<i>MRPL54</i>	39S ribosomal protein L54	Q6P161	3 4 4	0 0 0	1	0
<i>RPS12</i>	40S ribosomal protein S12	P25398	15 6 3	0 0 0	1	0
<i>MRPS17</i>	28S ribosomal protein S17	Q9Y2R5	13 3 5	0 0 0	1	0
<i>TIMM8B</i>	Mitochondrial import inner membrane translocase subunit Tim8 B	Q9Y5J9	3 7 6	0 0 0	1	0
<i>ZNF48</i>	Zinc finger protein 48	Q96MX3	3 8 5	0 0 0	1	0

<i>RPL36A</i>	60S ribosomal protein L36a	P83881	13 13 11	0 3 0	0.99	0
<i>RPL34</i>	60S ribosomal protein L34	P49207	7 7 8	0 2 0	0.99	0
<i>H2AV</i>	Histone H2A.V	Q71UI9	25 14 11	0 4 2	0.99	0
<i>HNRNPCL1</i>	Heterogeneous nuclear ribonucleoprotein C-like 1	O60812	11 19 22	2 2 5	0.99	0
<i>HAKAI</i>	E3 ubiquitin-protein ligase Hakai	Q75N03	2 16 15	0 0 0	0.99	0
<i>NHP2L1</i>	NHP2-like protein 1	P55769	2 6 3	0 0 0	0.99	0
<i>RPL30</i>	60S ribosomal protein L30	P62888	2 2 3	0 0 0	0.99	0
<i>RPLP0</i>	60S acidic ribosomal protein P0	P05388	7 2 7	0 0 0	0.99	0
<i>YBX3</i>	Y-box-binding protein 3	P16989	7 4 2	0 0 0	0.99	0
<i>RPLP1</i>	60S acidic ribosomal protein P1	P05386	8 10 8	2 2 2	0.98	0
<i>RPL31</i>	60S ribosomal protein L31	P62899	11 23 18	2 3 5	0.99	0
<i>CBX3</i>	Chromobox protein homolog 3	Q13185	11 10 14	0 4 4	0.96	0
<i>CCDC86</i>	Coiled-coil domain-containing protein 86	Q9H6F5	4 2 3	0 0 1	0.95	0
<i>RPS26</i>	40S ribosomal protein S26	P62854	2 2 4	0 0 1	0.92	0
<i>RPL23</i>	60S ribosomal protein L23	P62829	5 10 10	0 2 3	0.91	0
<i>RPL37A</i>	60S ribosomal protein L37a	P61513	15 22 9	0 5 4	0.9	0.01