

Table S1: Primers used for eIF1A mutagenesis¹

Name	Sequence	Mutation
CHA85	GATGACGATGACAAAagatccGcTgctgctgctgct AAAGGTGGTAAAAAAGGTAGAAGAGG	<i>GKKNT</i> ₂₋ <i>6AAAAA</i>
CHA86	CCTTTTTTACCACCTTTtagcagcagcagcAgCggatc TTTTGTCATCGTCATCTTTATAATCAG	<i>GKKNT</i> ₂₋ <i>6AAAAA</i>
CHA87	GACAAAagatccGGTAAGAAAAACACTgctGcTGcT gctgctGGTAGAAGAGGTAAGAACGACTCTG	<i>KGGKK</i> ₇₋₁₁ <i>AAAAA</i>
CHA88	CGTTCTTACCTCTTCTACCagcagcAgCagCagc AGTGTTTTTCTTACCggatcTTTTGTCATCGTCATC	<i>KGGKK</i> ₇₋₁₁ <i>AAAAA</i>
CHA89	GGTAAGAAAAACACTAAAGGTGGTAAAAAAGcT gctgctGcTgctAACGACTCTGACGGTCCAAAGCG	<i>GRRGK</i> ₁₂₋ <i>16AAAAA</i>
CHA90	CTTTGGACCATCAGAGTCGTTtagcAgCagcagcAgCT TTTTTACCACCTTTAGTGTTTTTCTTACCGG	<i>GRRGK</i> ₁₂₋ <i>16AAAAA</i>
CHA91	GGTGGTAAAAAAGGTAGAAGAGGTAAAgctGctgCT GctGcTCCAAAGCGTGAACCTATTTATAAGGAAGA AGGCC	<i>NDSGD</i> ₁₇₋ <i>21AAAAA</i>
CHA92	GGCCTTCTTCCTTATAAATAAGTTCACGCTTTGGA gCagCAGcagCagcTTTACCTCTTCTACCTTTTTTACC ACC	<i>NDSGD</i> ₁₇₋ <i>21AAAAA</i>
CHA93	GAGGTAAGAACGACTCTGACGGTgctgctgcTgctgcTg cTgcTAAGGAAGAAGGCCAAGAATATGCTC	<i>PKRELIY</i> ₂₂₋ <i>28AAAAAAA</i>
CHA94	GAGCATATTCTTGGCCTTCTTCCTTAgcAgcAgcagC AgcagcagcACCGTCAGAGTCGTTCTTACCTC	<i>PKRELIY</i> ₂₂₋ <i>28AAAAAAA</i>
CHA81	CGGTCCAAAGCGGGAACCTATTTAcgcGGctGctGctC AAGctTATGCTCAAATCACCAAGATG	<i>KEEGQE</i> ₂₉₋ <i>34AAAAQA</i>
CHA82	CATCTTGGTGATTTGAGCATAagCTTGagCagCagCCg cgTAAATAAGTTCcCGCTTTGGACCG	<i>KEEGQE</i> ₂₉₋ <i>34AAAAQA</i>
CHA83	GAATATGCTCAAATCACCAAGgctTTaGcTgcT GGAAGAGTCGAgGCCAGTTGC	<i>MLGN</i> ₄₁₋ <i>44ALAA</i>
CHA84	GCAACTGGCcTCGACTCTTCCAgcAgCtAAagcCTTG GTGATTTGAGCATATTCTTGG	<i>MLGN</i> ₄₁₋ <i>44ALAA</i>
CHA79	GCTCAGATCACTAAGATGTTGGGTAATGctgctGTC	<i>GRVE</i> ₄₅₋

Name	Sequence	Mutation
	GtcGCCAGTTGCTTTGATGGTAATAAG	<i>48AAVA</i>
CHA80	CTTATTACCATCAAAGCAACTGGCgaCGACagcagCA TTACCCAACATCTTAGTGATCTGAGC	<i>GRVE₄₅₋</i> <i>48AAVA</i>
CHA77	GGAAGAGTCGAAACCAGTTGCTTTGcTGcg AATgctAGAATGGCCCATATTAGAGGTAAG	<i>DGNK₅₃₋</i> <i>56AANA</i>
CHA78	CCTCTAATATGGGCCATTCTagcATTcgCagCAAAGC AACTGGTTTCGACTCTTCCATTACC	<i>DGNK₅₃₋</i> <i>56AANA</i>
CHA156	GATGGTAATAAGAGAATGGCCCATATTgatGGTAA GTTAAGAAAGAAAGTCTGG	<i>R₆₂D</i>
CHA157	CCAGACTTTCTTTCTTAACTTACCatcAATATGGGC CATTCTCTTATTACCATC	<i>R₆₂D</i>
CHA73	GGCTCATATTAGAGGTAAGTTGgctgctgctGTCgctAT GGGTCAGGGTGATATTATTCTTGTTTCC	<i>RKKVW₆₆₋</i> <i>70AAAVA</i>
CHA74	CACCCTGACCCATagcGACagcagcagcCAACTTACCT CTAATATGAGCCATTCTCTTATTACC	<i>RKKVW₆₆₋</i> <i>70AAAVA</i>
CHA71	GGTGATATTATTCTTGTTTCCTTAgetGcTgetgctGcTG ACCAATGTGATGTTGTCCAC	<i>RDFQD₈₂₋</i> <i>86AAAAA</i>
CHA72	GTGaACAACATCACATTGGTCagCagcagcAgCagcTA AGGAAACAAGAATAATATCACCTgtgccc	<i>RDFQD₈₂₋</i> <i>86AAAAA</i>
CHA69	GACCAATGTGATGTTGTCCACgctTATgcTTTAGATG ACGCCAGAACACTG	<i>KYN₉₄₋</i> <i>96AYA</i>
CHA70	CAGTGTTCTGGCGTCATCTAAAgcATAagcGTGGAC AACATCACATTGGTC	<i>KYN₉₄₋</i> <i>96AYA</i>
CHA67	CCACAAATATAATTTAGcTGctGCCgctACACTGAAA AACCAAGGTGAACTTCC	<i>DEAR₉₈₋</i> <i>101AAAA</i>
CHA68	CCTTGGTTTTTCAGTGTtagcGGCagCAgCTAAATTAT ACTTATGGACAACATCACATTGGTCATCTTGG	<i>DEAR₉₈₋</i> <i>101AAAA</i>
CHA65	GAAGCTAGAACACTGgctgctCAAGGTGAACTTCCT GAAAACG	<i>KN₁₀₄₋</i> <i>105AA</i>

Name	Sequence	Mutation
CHA66	CAGGAAGTTCACCTTGagcagcCAGTGTTCTAGCTTC ATCTAAATTATATTTG	<i>KN</i> ₁₀₄₋ <i>105AA</i>
CHA63	CTGAAAAACCAGGGTGAACCTTgCTGctAACGCCAA AATTAATGAAAC	<i>PE</i> ₁₁₀₋ <i>111AA</i>
CHA64	GTTTCATTAATTTTGGCGTTagCAGcAAGTTCACCC TGGTTTTTCAG	<i>PE</i> ₁₁₀₋ <i>111AA</i>
CHA61	CTTCCTGAAAACGCTAAGATTgcTGctACAGACAAC TTTGGTTTTCG	<i>NE</i> ₁₁₆₋ <i>117AA</i>
CHA62	CCGAAGTTGTCTGTtagCAGcAATTTTGGCGTTTTCA GGAAGTTCACC	<i>NE</i> ₁₁₆₋ <i>117AA</i>
CHA162	CCTGAAAACGCCAAAATTAATGAAgCtGctgctgctGcT TTCGAATCTGATGAAGACGTTAACTTTG	<i>TDNFG</i> ₁₁₈₋ <i>122AAAAA</i>
CHA163	CAAAGTTAACGTCTTCATCAGATTCGAAAgCagcag cagCaGcTTCATTAATTTTGGCGTTTTTCAGG	<i>TDNFG</i> ₁₁₈₋ <i>122AAAAA</i>
CHA164	CCAAAATTAATGAAACAGACAACCTTTGGTgctGctgC TGcTGctGACGTTAACTTTGAATTTGGTAACGC	<i>FESDE</i> ₁₂₃₋ <i>127AAAAA</i>
CHA165	GCGTTACCAAATTCAAAGTTAACGTCagCagCAGca gCagcACCAAAGTTGTCTGTTTCATTAATTTTGG	<i>FESDE</i> ₁₂₃₋ <i>127AAAAA</i>
CHA166	CAACTTTGGTTTTCGAATCTGATGAAGctGcTgctgC ctTTTGGTAACGCTGATGAAGATGATGAGG	<i>DVNFE</i> ₁₂₈₋ <i>132AAAAA</i>
CHA167	CCTCATCATCTTCATCAGCGTTACCAAagCagcagc AgCagCTTCATCAGATTCGAAACCAAAGTTG	<i>DVNFE</i> ₁₂₈₋ <i>132AAAAA</i>
TIF11- 28	AATCTGATGAAGACGTTAACgcTGAAgcccGGCAAC GCTGATGAAGATGATGA	<i>F</i> _{131A} , <i>F</i> _{133A}
TIF11- 29	ATGCGGCCGCTCTAGATACCTCGGGAA	<i>F</i> _{131A} , <i>F</i> _{133A}
CHA168	CGAATCTGATGAAGACGTTAACTTTGAAgcTGcTgct GCTGcTGAAGATGATGAGGAAGGTGAAGATG	<i>FGNAD</i> ₁₃₃₋ <i>137AAAAA</i>
CHA169	CATCTTCACCTTCCTCATCATCTTCagCAGCagcAgC AgcTTCAAAGTTAACGTCTTCATCAGATTCG	<i>FGNAD</i> ₁₃₃₋ <i>137AAAAA</i>
CHA170	CGTTAACTTTGAATTTGGTAACGCTGATGctGcTGc	<i>EDDEE</i> ₁₃₈₋

Name	Sequence	Mutation
	TGctGctGGTGAAGATGAAGAACTTGATATTG	<i>142AAAAA</i>
CHA171	CAATATCAAGTTCTTCATCTTCACCagCagCAgCAG CagCATCAGCGTTACCAAATTCAAAGTTAACG	<i>EDDEE₁₃₈₋ 142AAAAA</i>
CHA172	CGCTGATGAAGATGATGAGGAAGcTGctGcTGctGctg cTGATATTGATGACATTTAATTTAGGCCG	<i>GEDEEL₁₄₃₋ 148AAAAAA</i>
CHA173	CGGCCTAAATTAATGTCATCAATATCAgcagCagC AgCagCAgCTTCCTCATCATCTTCATCAGCG	<i>GEDEEL₁₄₃₋ 148AAAAAA</i>
CHA144	GGTGAAGATGAAGAACTTGcTgcTGcTGcCgcTTAAT TTAGGCCGAACAAGTG	<i>DIDDI₁₄₉₋ 153AAAAA</i>
CHA145	CACTTGTTTCGGCCTAAATTAAGcGgCAgCAgcAgCA AGTTCTTCATCTTCACC	<i>DIDDI₁₄₉₋ 153AAAAA</i>

¹Mutated positions are in lower case