

**Rapamycin activates autophagy via the
AMPK/mTOR/ULK1 signaling pathway to mitigate the
neurotoxic effects of fluoride combined with aluminum on
hippocampal neurons and NG108-15 cells**

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Table S1 Different treatment groups of NG108-15 cells

Groups	NaF (mg/L)	AlCl ₃ (mg/L)	Rap (μmol/L)
Control	0	0	0
DMSO	0	0	0
Rap	0	0	20
F	40	0	0
Al	0	160	0
F+Al	40	160	0
F+Rap	40	0	20
Al+Rap	0	160	20
F+Al+Rap	40	160	20

Table S2 Different treatment groups of rats

Groups	NaF (mg/L)	AlCl ₃ (mg/L)	Rap (mg/kg)
Control	0	0	0
DMSO	0	0	0
Rap	0	0	5
F	120	0	0
Al	0	600	0
F+Al	120	600	0
F+Rap	120	0	5
Al+Rap	0	600	5
F+Al+Rap	120	600	5

Gene	Primer sequence												
	Forward						Reverse						
AMPK	5'-GTC	AAA	GCC	GAC	CCA	ATG	5'-CGT	ACA	CGC	AAA	TAA	TAG	GGG
	ATA-3'						TT-3'						
mTOR	5'-GGC	ACA	CAT	TTG	AAG	AAG	5'-CTC	GTT	GAG	GAT	CAG	CAA	GG-3'
	CAG-3'												
ULK1	5'-ACA	TCC	GAG	TCA	AGA	TTG	5'-GCT	GGG	ACA	TAA	TGA	CCT	CAG
	CTG-3'						G-3'						
LC3	5'-GAC	CGC	TGT	AAG	GAG	GTG C-3'	5'-CTT	GAC	CAA	CTC	GCT	CAT	GTT
							A-3'						
GAPDH	5'-AAG	AAG	GTG	GTG	AAG	CAG G-3'	5'-GAA	GGT	GGA	AGA	GTG	GGA	
							GT-3'						