Supplementary tables:

Supplementary Table 1. Expression level of all the genes induced at least two fold following after either 4 or 8 hours of AP20187 treatment of Fv2E-PERK expressing cells or following 6 hours tunicamycin treatment of wildtype cells. For purpose of comparison we have also included the expression data on *Perk-/-* and *Atf4-/-* mouse embryonic fibroblasts. The expression level is defined as the normalized signal strength (see methods).

Supplementary Table 2. Induction level of all the genes induced at least two fold following after either 4 or 8 hours of AP20187 treatment of Fv2E-PERK expressing cells or following 6 hours tunicamycin treatment of wildtype cells. The induction level is defined as the ratio of the signal from treated to untreated cells. The mean ± the average deviation of the expression level or induction ratio from experiments performed in duplicate is shown.

The raw and normalized hybrization signal and the corresponding Affymetrix flag for all the data points in all experiments reported on here have been deposited in MIAME format with the NCBI Geo database: /www.ncbi.nlm.nih.gov:80/geo/.

Series Type:

Accession	Title	genotype	treatment	time (hr)
GSM10884	ISR1	WT	UT	0
GSM10885	ISR2	WT	UT	0
GSM10886	ISR3	WT	TM (2ug/ml)	6
GSM10887	ISR4	WT	TM (2ug/ml)	6
GSM10888	ISR5	ATF4-/-	UT	0
GSM10889	ISR6	ATF4-/-	UT	0
GSM10890	ISR7	ATF4-/-	TM (2ug/ml)	6
GSM10891	ISR8	ATF4-/-	TM (2ug/ml)	6
GSM10892	ISR9	PERK-/-	UT	0
GSM10893	ISR10	PERK-/-	UT	0
GSM10894	ISR11	PERK-/-	TM (2ug/ml)	6
GSM10895	ISR12	PERK-/-	TM (2ug/ml)	6
GSM10896	ISR13	Fv2E-PERK:eIF2 alpha SS: PERK-/-	UT	0
GSM10897	ISR14	Fv2E-PERK:eIF2 alpha SS: PERK-/-	UT	0
GSM10898	ISR15	Fv2E-PERK:eIF2 alpha SS: PERK-/-	AP20187 (2nM)	4
GSM10899	ISR16	Fv2E-PERK:eIF2 alpha SS: PERK-/-	AP20187 (2nM)	4
GSM10900	ISR17	Fv2E-PERK:eIF2 alpha SS: PERK-/-	AP20187 (2nM)	8
GSM10901	ISR18	Fv2E-PERK:eIF2 alpha SS: PERK-/-	AP20187 (2nM)	8
GSM10902	ISR19	Fv2E-PERK:eIF2 alpha AA	UT	0
GSM10903	ISR20	Fv2E-PERK:eIF2 alpha AA	UT	0
GSM10907	ISR21	Fv2E-PERK:eIF2 alpha AA	AP20187 (2nM)	4
GSM10908	ISR22	Fv2E-PERK:eIF2 alpha AA	AP20187 (2nM)	4
GSM10909	ISR23	Fv2E-PERK:eIF2 alpha AA	AP20187 (2nM)	8
GSM10910	ISR24	Fv2E-PERK:eIF2 alpha AA	AP20187 (2nM)	8