

Supplemental data

Functional diversity of human mitochondrial J-proteins is independent of their association with the inner membrane presequence translocase

Devanjan Sinha^{1§}, Shubhi Srivastava¹ and Patrick D'Silva^{1#}

¹Department of Biochemistry, Indian Institute of Science, Bangalore – 560012, Karnataka, India

[§]Present Address: Department of Zoology, Institute of Science, Banaras Hindu University, Uttar Pradesh, Varanasi - 221005, India

[#]Corresponding author

Figure S1

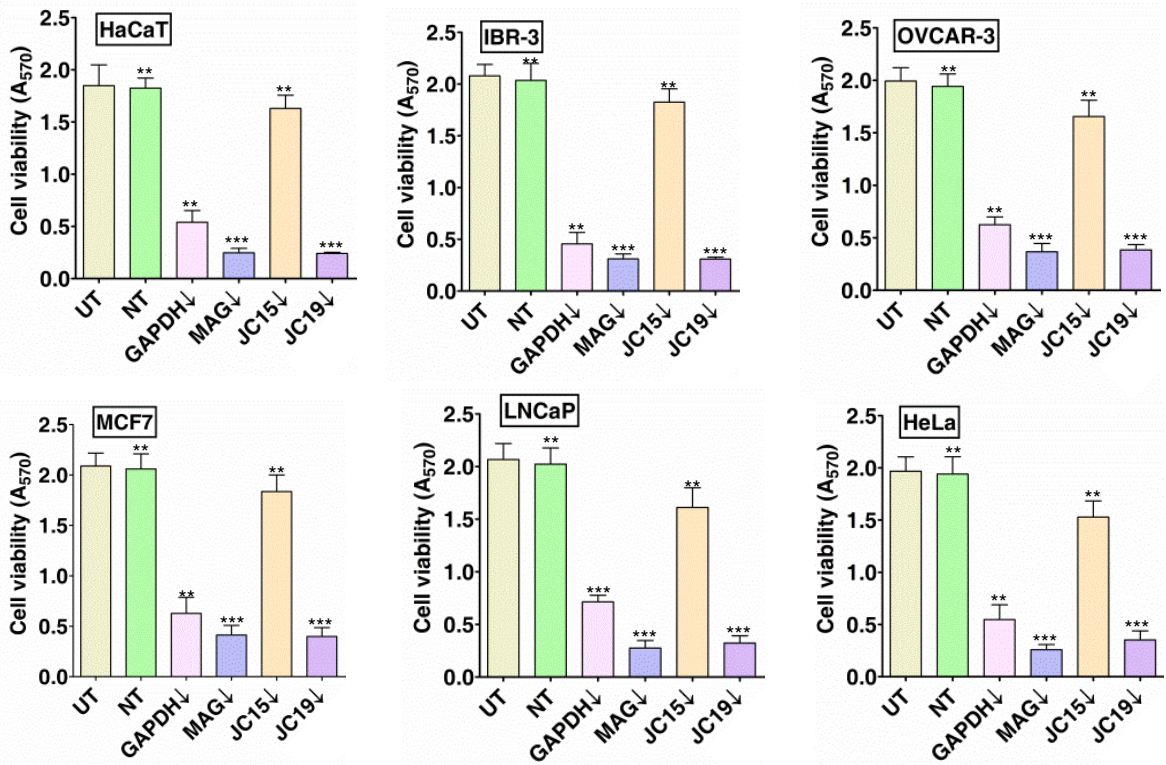


Figure S1. HaCaT, IBR-3, OVCAR-3, MCF7, LNCaP and HeLa cells were transfected with siRNA pools against Magmas (MAG), JC15 and JC19. 48 h post transfection relative cell viability was measured using MTT assay and data were represented as mean \pm s.e.m., $n = 8$, *** P (two tailed) < 0.0001, ** P (two tailed) < 0.001.

Figure S2

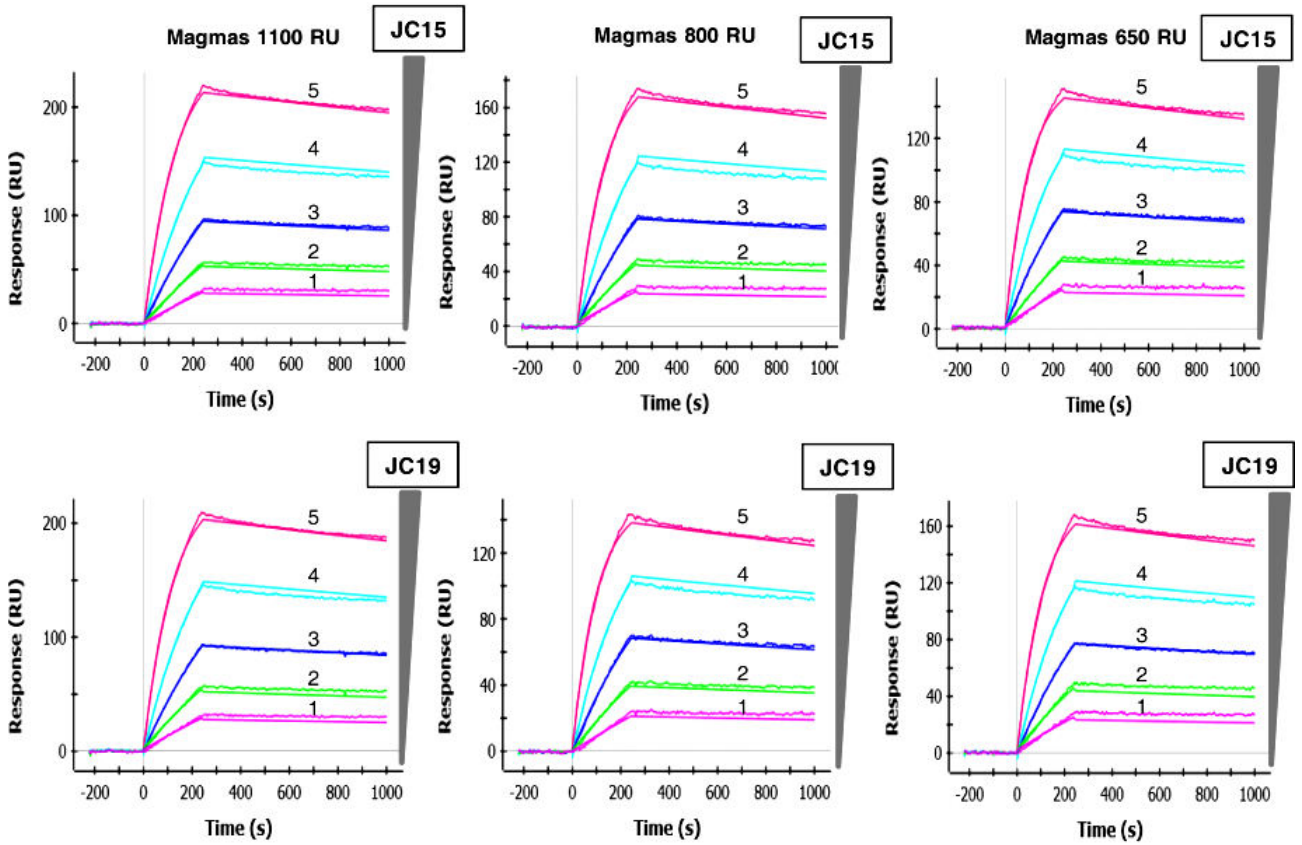


Figure S2. Dissociation curves of increasing concentrations (19 nM, 38 nM, 75 nM, 150 nM, 300nM) of JC15 or JC19 injected over immobilized Magmas at different response units (RU; 1100, 800 ,650).

Figure S3

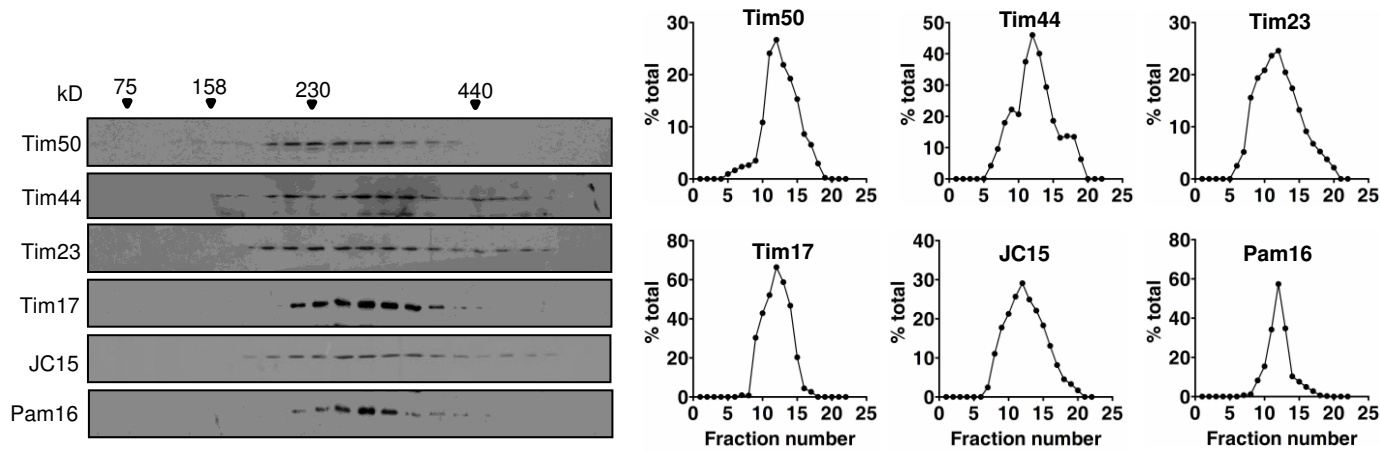


Figure S3. Wild type JC15 expressing mitochondria were lysed in 1% digitonin containing buffer. The mitochondrial lysate were then subsequently layered on 20-40% glycerol gradient and subjected to ultracentrifugation at 1,60,000 x g for 16 h. Samples were aspirated from the top and analyzed by immunoblotting against the essential presequence translocase components namely, Tim50, Tim44, Tim23, Tim17, Pam18, and Pam16. The relative distribution of presequence translocase components across various fractions were quantified densitometrically by ImageJ software and represented in form of line diagram through GraphPad Prism5.

Figure S4

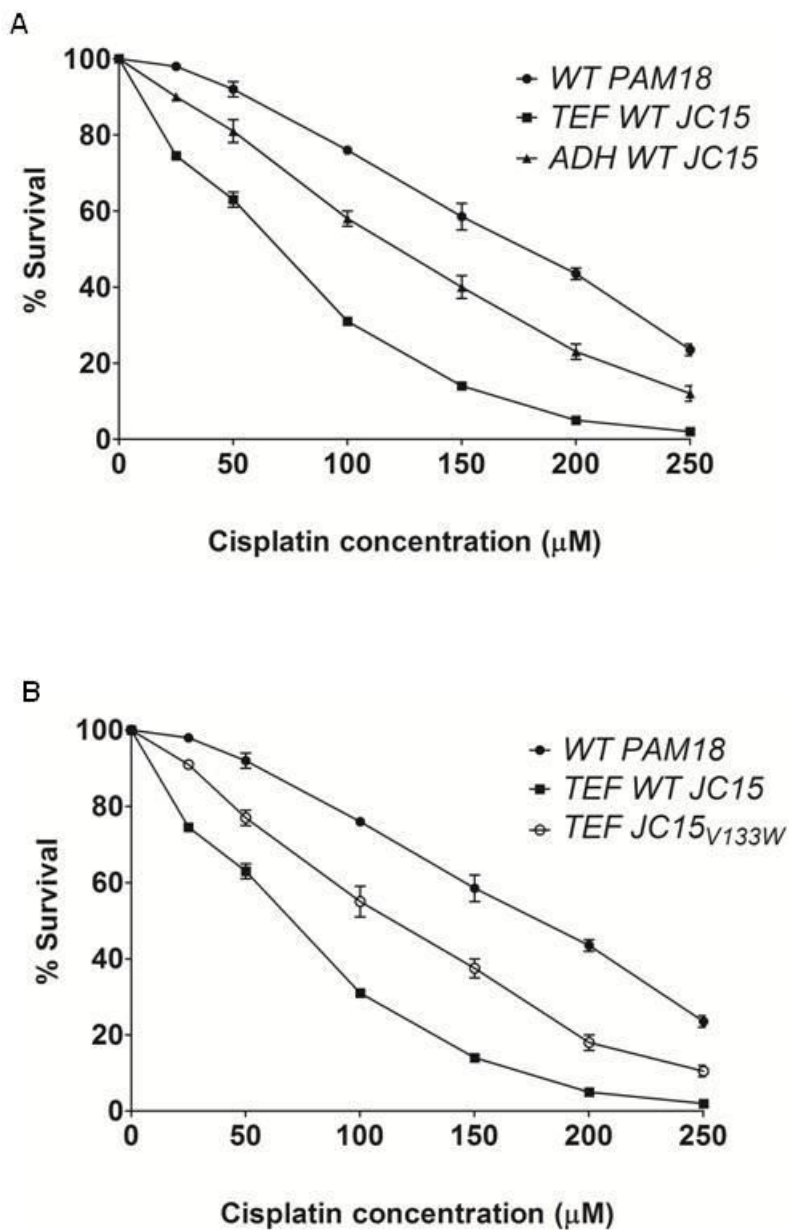


Figure S4. (A, B) Yeast cells were grown to an A_{600} of 0.05 and then subjected to cisplatin treatment for 8 hrs. Cells corresponding to A_{600} of 1.0 were diluted 5000-fold and plated on rich media, followed by incubation at permissive temperature for 48 h. Colonies were counted and normalized against the untreated samples. The number of colonies formed in absence cisplatin (untreated) was set to 100% survival. The experiment was carried out in triplets and plotted as mean with standard error.