

Table S1. Summary of the three phases of the overall screen for genes required for HIF activity.

Screen	Genes Analyzed	Reporter System	dsRNA library	Stimulus	Hit Selection Criterion	N° of hits
Primary	~22,000 genes (Whole DRSC 1.0 dsRNA library)	HRE- firefly Luc	DRSC 1.0	DFO	Z score \leq -2,5	609
Secondary	225 Primary hits (Total primary hits filtered against cell viability screen and Sanger Collection)	HRE- firefly Luc and Actin- <i>Renilla</i> Luc	DRSC 2.0	DFO	Inhibition of HRE-luc activity \geq 50% (Group A >75% ; Group B 50%-75%)	66
Tertiary	35 Secondary hits (Group A and 12 genes from Group B functionally related to Group A genes)	HRE- firefly Luc and Actin- <i>Renilla</i> Luc	DRSC 2.0	Hypoxia (1% O ₂)	Inhibition of HRE-luc activity \geq 50%	30