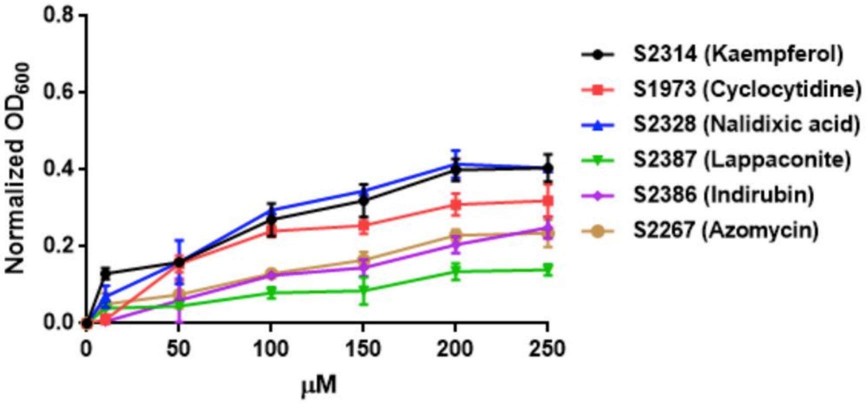

Figure S1. Dose-response curves of the six positive hits. *klpmr1*Δ cells were grown for 24h in the presence of different concentrations of the indicated compounds, then cells were challenged for further 24h with either menadione or H2O2, depending on the ability of each compound to allow the growth of *klpmr1*Δ cells using enadione or H2O2 as selective agents, as reported in Figure1. For Kaempferol only the dose-curve response in the presence of H2O2 is shown since its effect on cell growth in H2O2 was much stronger than that observed in menadione treated cells Figure1 The optical density was determined and normalized to OD600 of untreated cells.

Table S1. The collection of 131 natural compounds utilized in the screening. Asterisks indicate molecules that resulted toxic.

S1973	Cyclocytidine HCl	**S2314**	Kaempferol	**S2370**	Ursolic acid (Malol)
S2250	(-)-Epigallocatechin gallate	**S2316**	Kinetin (6-Furfuryladenine)	**S2371**	Vanillylacetone
S2252	(+)-Usniacin (D-Usnic acid)	**S2317**	L (+)-Rhamnose Monohydrate	**S2372**	Xanthone (Genicide)
S2253	3-Indolebutyric acid (IBA)	**S2319**	Limonin	**S2373**	Yohimbine hydrochloride (Antagonil)
S2256	4-Methylumbelliferone (4-MU)	**S2320**	Luteolin	**S2374**	5-hydroxytryptophan (5-HTP)
S2258	Aesculin (Esculin)	**S2321**	*Magnolol	**S2375**	Aloin (Barbaloin)
S2260	*Amygdalin	**S2322**	Matrine ((+)-Matrine)	**S2376**	Ammonium Glycyrrhizinate (AMGZ)
S2261	Andrographolide	**S2323**	Methyl-Hesperidin	**S2377**	*Biochanin A (4-Methylgenistein)
S2262	Apigenin	**S2325**	Morin hydrate (Aurantica)	**S2378**	Butylscopolamine bromide
S2263	Arbutin (Uva, p-Arbutin)	**S2326**	Myricetin (Cannabiscetin)	**S2379**	Dioscin (Collettiside III)
S2265	Artesunate	**S2327**	Myricitrin (Myricitrine)	**S2380**	Diosmetin (Luteolin 4-methyl ether)
S2266	Asiatic acid	**S2328**	Nalidixic acid (NegGram)	**S2381**	D-Mannitol (Osmitrol)
S2267	Azomycin (2-Nitroimidazole)	**S2329**	Naringin (Naringoside)	**S2383**	Gastrodin (Gastrodine)
S2268	*Baicalein	**S2331**	Neohesperidin dihydrochalcone (Nhdc)	**S2384**	Hematoxylin (Hydroxybrazilin)
S2269	Baicalin	**S2332**	Neohesperidin	**S2385**	Hordenine
S2270	Bergenin (Cuscutin)	**S2333**	Nobiletin (Hexamethoxyflavone)	**S2386**	Indirubin
S2271	*Berberine Hydrochloride	**S2334**	Oleanolic Acid (Caryophyllin)	**S2387**	Lappaconite Hydrobromide
S2273	β-Sitosterol	**S2335**	Oridonin (Isodonol)	**S2389**	Naringin Dihydrochalcone (Naringin DC)
S2276	Bilobalide	**S2336**	Orotic acid (6-Carboxyuracil)	**S2390**	Polydatin(Piceid)
S2277	Caffeic acid	**S2337**	Osthole (Osthol)	**S2391**	Quercetin (Sophoretin)
S2280	Chlorogenic acid	**S2338**	Oxymatrine (Matrine N-oxide)	**S2392**	Sesamin (Fagarol)
S2281	*Chrysin	**S2339**	Paeonol (Peonol)	**S2393**	Sorbitol (Glucitol)
S2282	Cinchonidine	**S2341**	*Parthenolide ((-)-Parthenolide)	**S2394**	Naringenin
S2285	Cryptotanshinone	**S2342**	Phloretin (Dihydronaringenin)	**S2395**	Rheochrysidin (Physcione)
S2286	Cyclosporin A (Cyclosporine A)	**S2343**	Phlorizin (Phloridzin)	**S2396**	Salidroside (Rhodioloside)
S2287	Cytisine (Baphitoxine, Sophorine)	**S2344**	Piperine (1-Piperoylpiperidine)	**S2397**	Palmatine chloride
S2290	Dihydroartemisinin (DHA)	**S2346**	Puerarin (Kakonein)	**S2399**	Dihydromyricetin (Ampeloptin)

S2292	Diosmin	**S2347**	Quercetin dihydrate (Sophoretin)	**S2401**	Sodium Danshensu
S2293	DL-Carnitine hydrochloride	**S2349**	Rutaecarpine (Rutecarpine)	**S2403**	Tetrandrine (Fanchinine)
S2295	Emodin	**S2350**	Rutin (Rutoside)	**S2404**	*Isoliquiritigenin
S2296	Enoxolone (Glycyrrhetin)	**S2351**	Salicin (Salicoside, Salicine)	**S2405**	Sophocarpine
S2298	Fisetin (Fustel)	**S2354**	Sclareol	**S2406**	Chrysophanic acid (Chrysophanol)
S2299	Formononetin (Formononetol)	**S2355**	Sclareolide (Norambreinolide)	**S2407**	Curcumol
S2300	Fumalic acid (Ferulic acid)	**S2356**	Shikimic acid (Shikimate)	**S2415**	Astragaloside A
S2302	Glycyrrhizic acid	**S2357**	Silibinin (Silybin)	**S2422**	Ipriflavone
S2303	Gossypol	**S2358**	Silymarin (Silybin B)	**S2423**	10-Hydroxycamptothecin
S2304	Gramine	**S2359**	Sinomenine (Cucoline)	**S2424**	Hypoxanthine
S2306	Gynostemma Extract	**S2362**	Synephrine (Oxedrine)	**S2425**	Apocynin (Acetovanillone)
S2308	Hesperetin	**S2363**	Tangeretin (Tangeritin)	**S2437**	Rotundine
S2309	Hesperidin	**S2364**	Tanshinone I	**S2439**	Guanosine
S2310	*Honokiol	**S2365**	Tanshinone IIA (Tanshinone B)	**S2442**	Inosine
S2311	Hyodeoxycholic acid (HDCA)	**S2366**	Taxifolin (Dihydroquercetin)	**S3071**	Vanillin
S2312	Icariin	**S2367**	Tetrahydropapaverine hydrochloride	**S3604**	Triptolide
S2313	Indole-3-carbinol	**S2369**	Troxerutin		

Table S2. Summary of the *klpmr1*Δ phenotypes analyzed to screen the natural product library.

Compounds	menadione	H_2O_2	EGTA	CFW	DASPMI
S2387 (Lappaconite)	++	-	-	++	++
S2267 (Azomycin)	++	+	-	++	-
S2386 (Indirubin)	+	-	+ +	++	++
S2328 (Nalidixic acid)	+	-	-	+++	-
S1973 (Cyclocytidine)	-	++	++	++	-
S2314 (Kaempferol)	+	++	-	++	+++

*(+++) = Totaly o strongly recovered; (++) = partialy recovered; (+) = slightly recovered; (-) = not recovered