

Table S2. Comparison of our *in vitro* data with previous *in vivo* data.

Chemical ID	Sequence information	AG (%)	ANT (%)	<i>In vivo</i> activity (%)	
1737	GLWFGPRLa	100	-4.3	~80	
1640	LWFGPRa	17.5	41	>30	
1641	GPRLa	3.2	26.2	~10, N	
1642	FGPRLa	54.7	13.3	~10, N	
1643	WGFGPRLa	112.8	-13.4	No data	
1673	LWFGPa	1.5	24.4	~5, N	
1674	LWFGR-	2.6	14.6	No data	
1619	LWFGPRLa	109.4	-12.4	>55	<i>In vivo</i> activity on breaking pupal diapauses in <i>H.zea</i> (reference 28)
1615	AWFGPRLa	116.7	-24.1	~20, N	
1617	LAFGPRLa	75.3	17.5	~12, N	
1618	LWAGPRLa	83.1	-2.4	~20, N	
1614	LWFA PRLa	115.3	-19.5	~60	
1620	LWFGA RLa	73.1	14.2	>20, N	
1621	LWFGPA La	2.1	25.4	<10, N	
1622	LWFGPRA a	12.3	26.1	<10, N	
1720 (HzDH)	NDVKDGAASGAHSDRLGLWFGPRLa	81.3	4.9	~95	
1902	2Abf-Suc-FKPRLa	124.7	-25.7	~85	
1903	2Abf-Suc-FVPRLa	111.7	-13.6	~75	
1894	2Abf-Suc-FSTRLa	3.5	23.8	~40	<i>In vivo</i> activity on preventing pupal diapauses in <i>H.zea</i> (reference 27)
1895	2Abf-Suc-FGPRLa	124.7	-24.7	~30	
1896	2Abf-Suc-FTPRIa	4.5	2.9	~40	
1868	2Abf-Suc-[β^3 F]KPRLa	107.0	-11.6	~40	
1477	2Abf-Suc-AGPRLa	103.2	-3.8	~40	
1720 (HzDH)	NDVKDGAASGAHSDRLGLWFGPRLa	81.3	4.9	~50	