SUPPLEMENTAL FIGURE LEGENDS

Figure S1. HIF1α(P564A) is degraded by HPACGV in a proteasome-dependent manner.
HEK293A cells transfected with the indicated plasmids were treated with (+) or without (-) MG132 prior to lysis. Equal amounts of protein, as indicated by anti-Vinculin immunoblot, were immunoprecipitated with anti-HA (top panel) or anti-T7 (middle panel) antibodies. Bound proteins were resolved by SDS-PAGE and immunoblotted with indicated antibodies. IP: immunoprecipitation, IB: immunoblot.

Figure S2. HPACGV does not bind or degrade AhR.
(A) ^{35}S-labelled in vitro translated HPACGV was mixed with ^{35}S-labelled in vitro translated AhR. Sample mixtures were immunoprecipitated with anti-AhR antibody, resolved by SDS-PAGE and visualized by autoradiography. **(B)** ^{35}S-labelled in vitro translated ARNT was mixed with unlabelled in vitro translated AhR. Sample mixtures were immunoprecipitated with anti-AhR antibody, resolved by SDS-PAGE and visualized by autoradiography. **(C)** HEK293A cells transfected with empty plasmid (MOCK) or plasmid encoding HPACGV were lysed and equal amounts of whole cell lysates were mixed with ^{35}S-labelled in vitro translated AhR. Sample mixtures were resolved by SDS-PAGE and visualized by autoradiography. **(D)** HEK293A cells transfected with the indicated plasmids were lysed and equal amounts of protein, as indicated by anti-Vinculin immunoblot, were immunoprecipitated with anti-AhR (top panel) or anti-T7 (middle panel) antibodies. Bound proteins were resolved by SDS-PAGE and immunoblotted with indicated antibodies. AR: autoradiography, IP: immunoprecipitation, IB: immunoblot.

Figure S3. HPACGV is more potent than HPAC at inhibiting HIF-mediated transcription.
(A) Dual-luciferase assay was performed in HEK293A cells transiently transfected with $(HRE)_5$-Luc in combination with plasmids encoding T7-HPAC or T7-HPACGV. SV40-driven renilla luciferase was transfected as an internal control. Cells were maintained at 1% oxygen for 16 hours prior to analysis. Error bars represent standard deviations. **(B)** Expression levels of transfected T7-HPAC and T7-HPACGV in (A) were determined via Western blot analysis. Asterisk represents proteins non-specifically recognized by T7 antibody. IB: immunoblot.

Figure S4. Dorsal skin-fold window chamber setup.
The titanium window chamber was surgically implanted into the dorsal skin of SCID mice. 786-dsRed cells were injected into the dorsal dermis. Visualization of the tumour and associated vasculature were facilitated by a circular glass coverslip positioned over the incision.

Supplemental Figures

Fig. S1

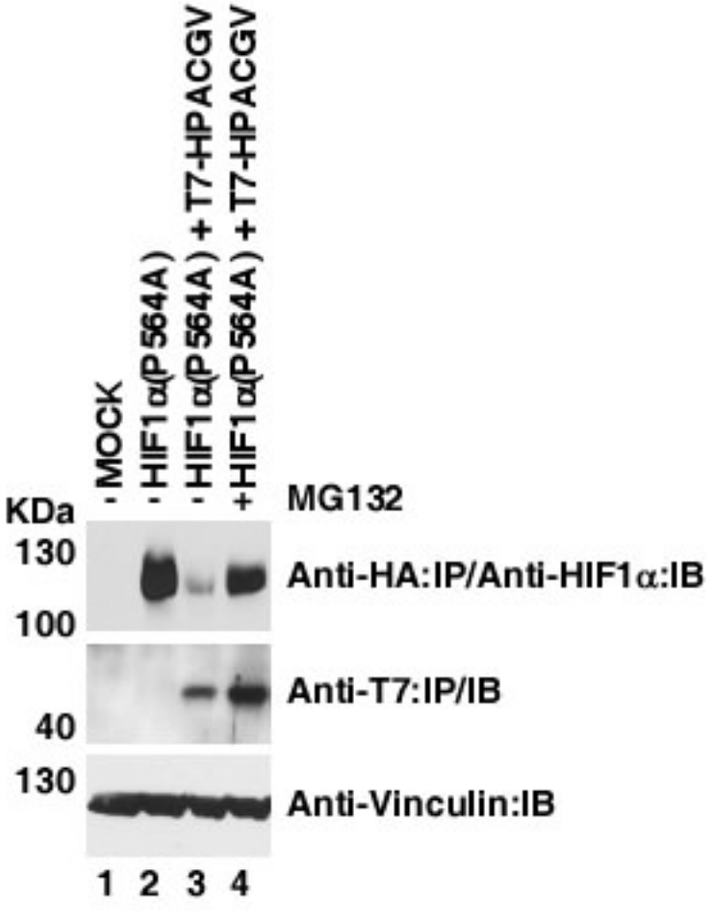

Fig. S2

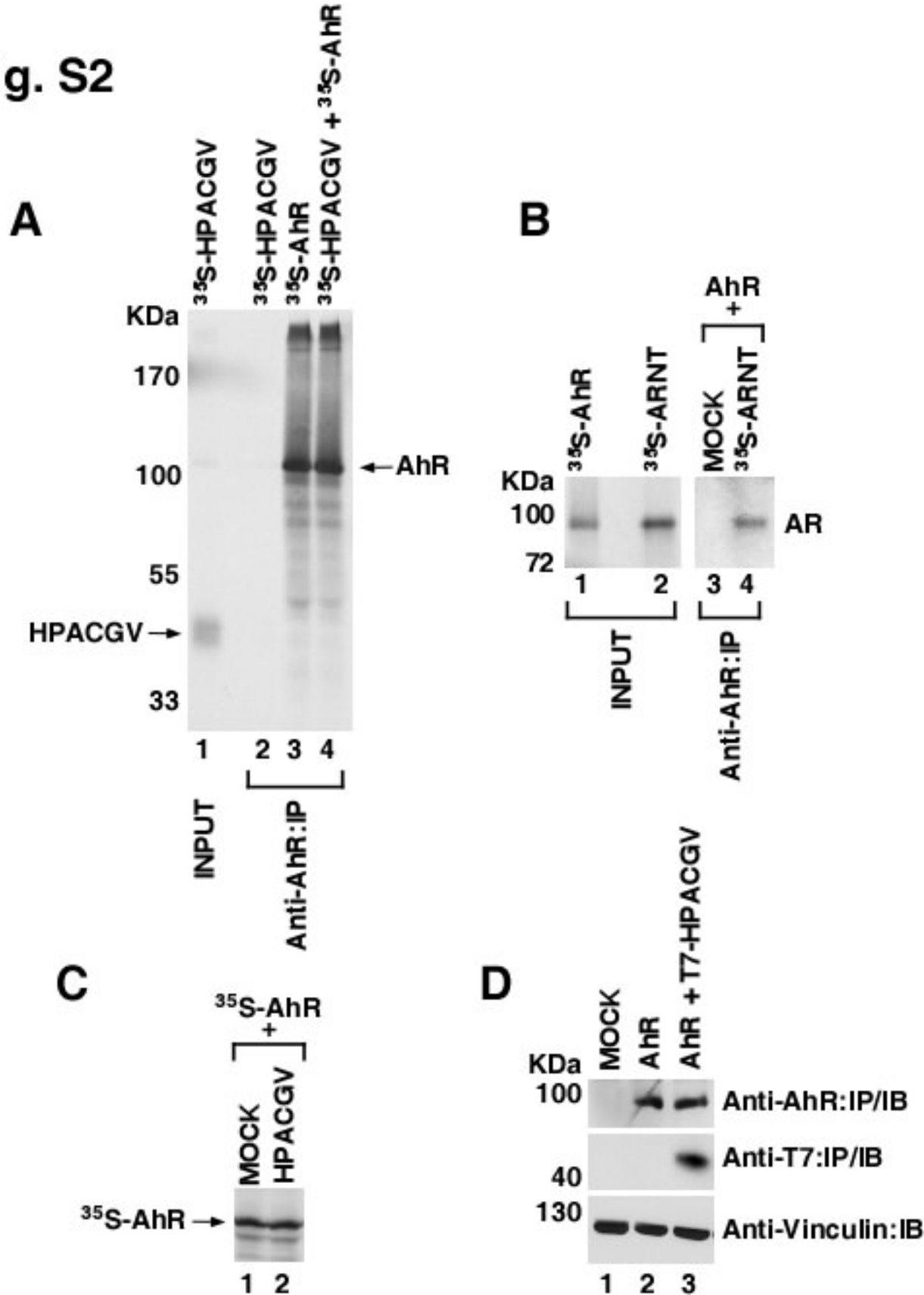

Fig. S3

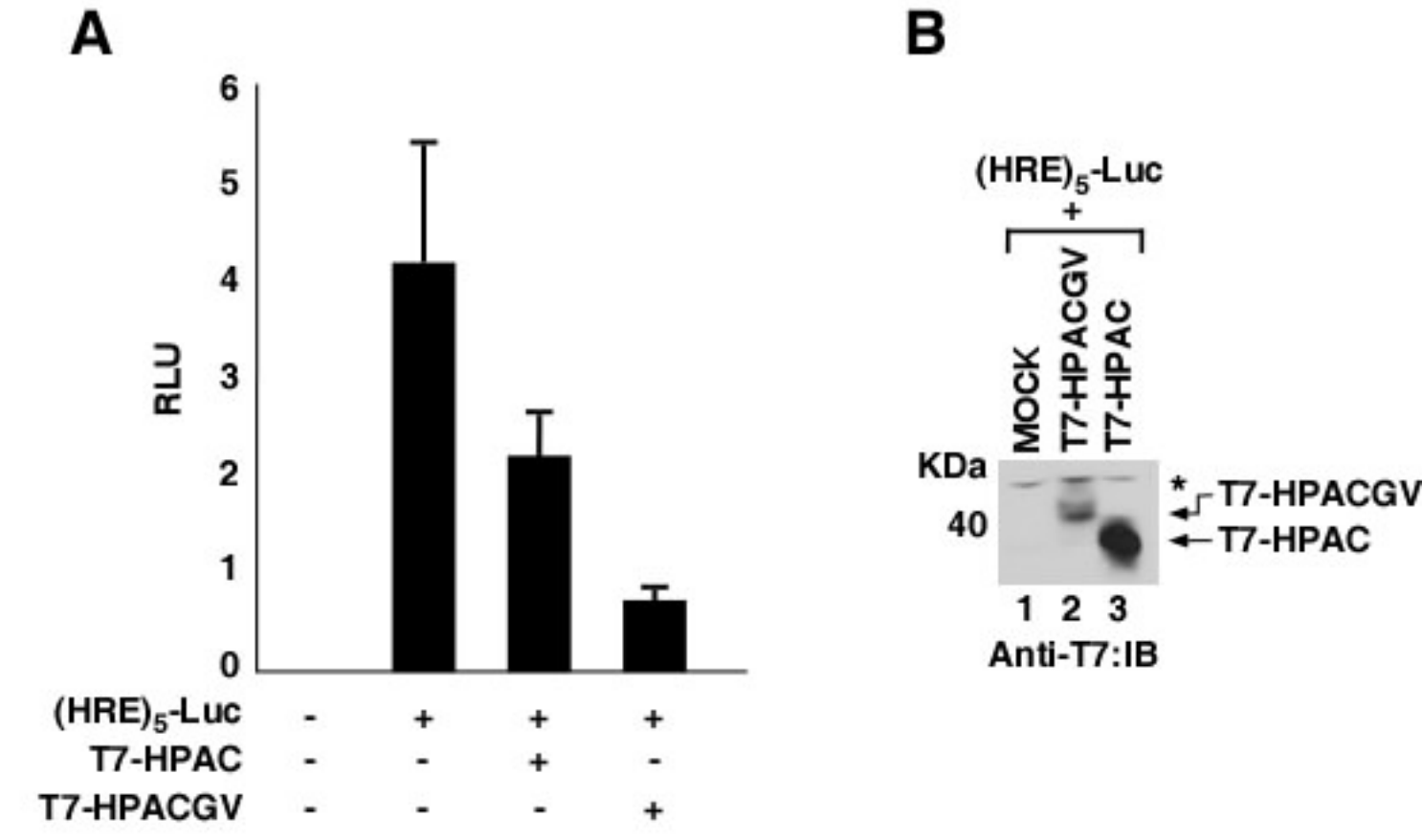
A
RLU
6
5
4
3
2
1
0
(HRE)5-Luc - + + +
T7-HPAC - - + -
T7-HPACGV - - - +
B
(HRE)5-Luc
+
MOCK
T7-HPACGV
T7-HPAC
KDa
40
*
T7-HPACGV
T7-HPAC
1 2 3
Anti-T7:IB

Fig. S4