

Supplementary methods

Single-point growth inhibition assay

Human carcinoma cells HeLa, HepG2, DLD-1 and MDA-MB, were seeded under normoxia for 24h, following which cells were exposed to 1 μ M PMX (10-fold the IC₅₀ for HeLa cells) either with or without 0.5mM DMOG for 72h. Cell survival was determined by viable cell counting using Trypan blue. Percent survival is calculated relative to PMX-free control.

Nuclear protein extraction

Cells were lysed on ice using a hypotonic buffer (10mM HEPES pH 7.9, 10mM KCl, 0.1mM EDTA, 0.1mM EGTA, 1mM DTT, and 0.5% NP-40) and nuclei were harvested by centrifugation (14000rpm, 30sec, 4°C). Nuclear proteins were extracted by sonication (Misonix Microson, amplitude 4) twice for 15sec with a 15sec interval.

CFSE analysis

Cells were labeled with carboxyfluorescein diacetate succinimidyl ester (CFSE) (Cayman Chemical) by incubating 8 \times 10⁶ cells/ml in pre-warmed PBS with 5 μ M CFSE for 30min at 37°C and 5%CO₂. Labeling was terminated by the addition of growth medium and cells were washed three times and allowed to recover for 30min before seeding. Two hours after seeding, cells were subjected to DMOG treatment as described in table 1 or grown under normoxia. At this time, an aliquot of the cells was analyzed for CFSE content by an LSRII flow cytometer equipped with BD FACSDiVa™ Software Version 6.1. The remaining cells were washed twice and allowed to recover for 72h under normoxia following which they were evaluated for CFSE content.

The difference between the number of cell doublings under DMOG treatment and normoxia was calculated using the following formula:

$$F_{\text{norm}} = F_{\text{DMOG}} \times 2^n$$

$$n = \ln (F_{\text{norm}}/F_{\text{DMOG}}) / \ln 2$$

where F is the measured CFSE fluorescence intensity and n is the difference in the number of cell divisions.