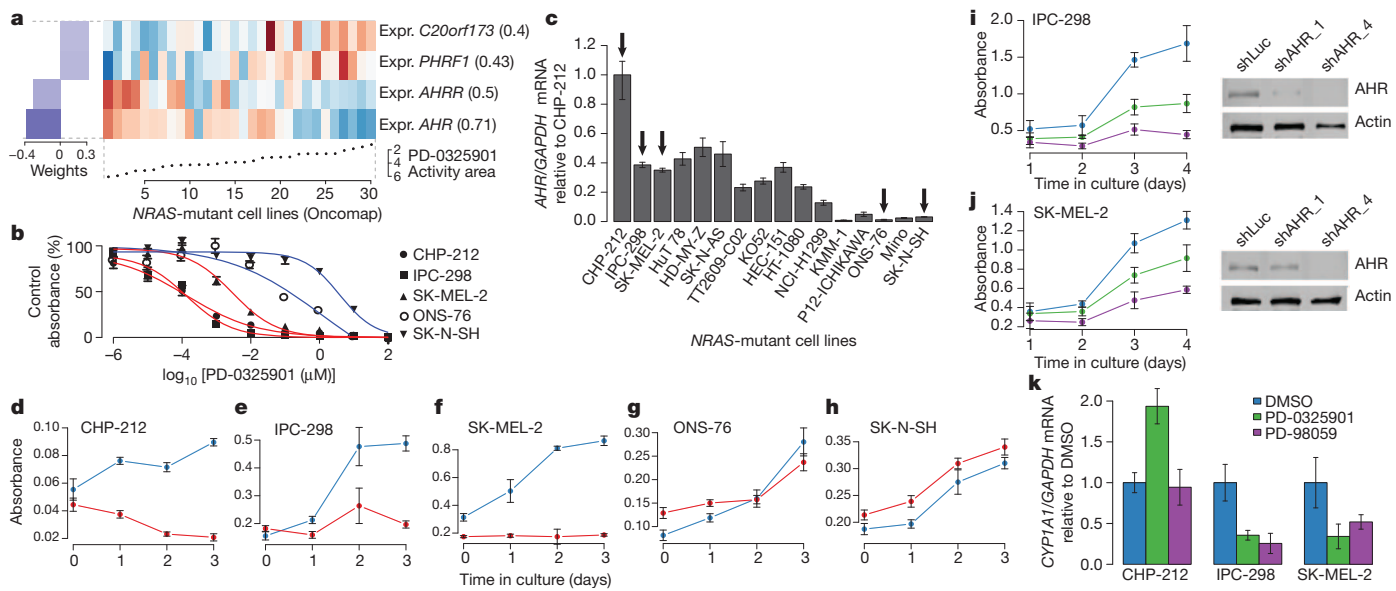

Figure 3 | *AHR* expression may denote a tumour dependency targeted by MEK inhibitors in *NRAS*-mutant cell lines. **a**, Predictive features for PD-0325901 sensitivity (using the 'varying baseline' activity area) in validated *NRAS*-mutant cell lines. **b**, Growth inhibition curves for *NRAS*-mutant cell lines expressing high (red) or low (blue) levels of *AHR* mRNA in the presence of the MEK inhibitor PD-0325901. **c**, Relative *AHR* mRNA expression across a panel of *NRAS*-mutant cell lines (arrows indicate cell lines where AHR dependency was analysed). **d**–**h**, Proliferation of *NRAS*-mutant cell lines displaying high (**d**–**f**) and low (**g**, **h**) *AHR* mRNA expression, after introduction of shRNAs against *AHR* (red lines) or luciferase (blue lines). **i**, Left: proliferation of IPC-298 cells (high AHR) after introduction of additional shRNAs against *AHR* (shAHR_1 and shAHR_4; green and purple lines, respectively) or luciferase (control shLuc; blue line). Right: corresponding immunoblot analysis of AHR protein. **j**, Equivalent studies as in **i** using SK-MEL-2 cells (high AHR). **k**, Endogenous *CYP1A1* mRNA expression in the neuroblastoma line CHP-212 or the melanoma lines IPC-298 and SK-MEL-2 after exposure to vehicle (blue) or MEK inhibitors (PD-0325901, green or PD-98059, purple). Error bars indicate standard deviation between replicates, with $n = 12$ (**b**), $n = 3$ (**c**), $n = 6$ (**d**–**k**).