



RPE CELL LINES WITH PLK4 CONDITIONAL KNOCKOUT AND ANALOG SENSITIVE MUTATION

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The Invention

UW-Madison researchers have developed two cell lines derived from RPE-1 cells (which were obtained from ATCC), an immortalized, non-transformed human epithelial cell line. "PLK4 WTflox/Delta" is a PLK4 conditional knockout cell line that is heterozygous for PLK4 (i.e., the other PLK4 locus was deleted), with loxP sites around exons 3 and 4 of the WT allele; treatment with Cre recombinase causes deletion of PLK4. "PLK4-AS/Delta" is a PLK4 analog-sensitive mutant, rendering PLK4 susceptible to inhibition with a bulky ATP analog (e.g., 3-MB-PP1); the line is heterozygous for PLK4 (i.e., the floxed exons 3 and 4 were deleted from the PLK4WT locus by AdCre treatment), and the AS allele has an analog-sensitive mutation (L89G) at a gatekeeper residue.

Tech Fields

- [Drug Discovery & Development : Other drug discovery & development](#)
- [Research Tools : Cell lines](#)

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