

Isogenic HCT116 cell lines with heterozygous or homozygous IDH1R132H mutation

Value Proposition

One of the major challenges in studying the implications of the *IDH1* mutations has been the dearth of cell line models which recapitulate IDH mutation-dependent tumor progression.

Technology

Researchers at Duke have generated the IDH1 isogenic cell line system for studying the impact of IDH mutation on tumorigenesis. To study the function of hotspot IDH1 mutation, IDH^{R132H} knock-in was introduced into the wild type IDH1 background. The resultant clones were sequence verified and analyzed for d-2-hydroxyglutarate production.

Other Applications

The IDH1 isogenic cell lines can be used for discovering new therapeutic targets

Advantages

- Expresses the mutant IDH^{R132H}, the most common hotspot mutation in gliomas
- Both heterozygous and homozygous IDH^{R132H} cell lines are available

Patents

Patent Number: 9,074,221

Title: HOMOZYGOUS AND HETEROZYGOUS IDH1 GENE-DEFECTIVE CELL LINES DERIVED FROM HUMAN COLORECTAL CELLS

Country: United States of America

Duke

LICENSING & VENTURES

Duke File (IDF)

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Links

- [From the lab of Dr. Hai Yan](#)

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