# NCI-H1373

305597

## GENERAL INFORMATION

### Description

NCI-H1373□胞系是一种携带KRAS G12C突变的人类非小□胞肺癌（NSCLC）模型，该突变常与肺腺癌的致瘤过程相关。 该突变会导致下游信号传导通路（如丝裂原活化蛋白激酶（MAPK）和磷脂酰肌醇3激酶（PI3K）通路）的持续激活，从而促进肿瘤的增殖和存活。 NCI-H1373 被广泛用于研究，以评估针对 KRAS G12C 及相关致癌通路的新型治疗药物的疗效。

在临床前研究中，NCI-H1373已被用于评估新兴的KRAS G12C抑制剂（如ASP2453）的活性。该抑制剂表现出对突变型 KRAS蛋白的强效、选择性且共价结合能力，可在体外抑制KRAS介导的信号传导和肿瘤□胞增殖。 该□胞系还被用于异种移植模型，在该模型中， ASP2453诱导了显著的肿瘤退缩。这一活性凸显了 NCI-H1373 在理解新型 KRAS 抑制剂的治疗潜力和作用机制方面的实用价值。

此外，NCI-H1373已被用于全基因组CRISPR敲除筛选，以探索PARP7抑制剂耐药的机制。 研究结果表明，芳香烃受体（AHR）信号传导的缺失与PARP7抑制剂耐药性相关，这为潜在的联合治疗策略提供了依据。此类研究证明了该 □胞系在识别耐药通路以及优化针对 KRAS G12C突变型非小□胞肺癌（NSCLC）的靶向治疗方案方面的作用。

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|---|---|
| **Tissue** | 肺部 |
| **Disease** | 腺癌 |

### Synonyms

- H1373
- H-1373
- NCIH1373

## CLASSIFICATION

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|---|---|
| **Organism** | Human |
| **Sex** | Male |
| **Growth properties** | Adherent |
| **Biosafety level** | 1 |

## CHARACTERISTICS

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| **Morphology** | 上皮样 |

## IDENTIFIERS

### Citation

NCI-H1373（Cytion 产品编号 305597）

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| **NCBI TaxID** | 9606 |
| **Cellosaurus** | CVCL_1465 |

## EXPRESSION AND SUSCEPTIBILITY

### Mutational profile

突变：KRAS，p.Gly12Cys (c.34G>T)，纯合子；突变：TP53，p.Pro47Leu (c.140C>T)，纯合子

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## HANDLING AND CULTURE

### Culture medium

RPMI 1640□w□2.0 mM □□□□□□□w□2.0 g/L NaHCO3□Cytion □□□□ 820700a□□

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| **Incubation atmosphere** | 37°C, 5%CO2, □□□□□ |

### Supplements

□□□□□□□ 10% FBS

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| **Dissociation reagent** | Accutase |

### Subculturing

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| **Fluid renewal** | □□ 2 □ 3 □ |

### Thawing and culturing

Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
Upon receipt, either store the cryovial immediately at temperatures below -150°C to ensure the preservation of cellular integrity, or proceed to step 3 if immediate culturing is required.
For immediate culturing, swiftly thaw the vial by immersing it in a 37°C water bath with clean water and an antimicrobial agent, agitating gently for 40-60 seconds until a small ice clump remains.
Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
Carefully open the disinfected vial and transfer the cell suspension into a 15 ml centrifuge tube containing 8 ml of room-temperature culture medium, mixing gently.
Centrifuge the mixture at 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium.
Gently resuspend the cell pellet in 10 ml of fresh culture medium. For adherent cells, divide the suspension between two T25 culture flasks; for suspension cultures, transfer all the medium into one T25 flask to promote effective cell interaction and growth.
Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.

## QUALITY CONTROL AND CRYOPRESERVATION

### Sterility

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| **Freeze medium** | □□□□□□□□□□□□□□□ FBS□+10% DMSO □ CM-1□Cytion □□□□□□ 800100□□□□□□□□□ □□□□□□□□□□□□□□□□□CM-1□Cytion □□□□□□ 800100□□□□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□ |

### Storage conditions

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### Shipping conditions

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## DONOR

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| **Donor age** | 56 □ |
| **Ethnicity** | □□□□□□ |

## LEGAL AND SAFETY

### Safety precautions

计划将低温样品储存在液氮中以便将来解冻时，必须遵守严格的安全措施。在将冷冻样本移入或移出液氮罐时，必须穿戴适当的防护手套和防护服，并使用面罩或安全护目镜。这样做是为了降低在移出时因冷冻样品爆炸而造成伤害的风险，因为爆炸可能导致锋利的碎片飞溅。

### Warranty

在Cytion，我们保证产品的质量和活力。
我们保证，从我们的工厂发货后 60 天内，我们的□胞在开始培养时都是存活的。
我们保证所有材料均符合分析证书和/或产品说明书中描述的规格。
有关详□信息，请参阅我们的 <a href="" /Who-we-are/Warranty/"" hreflang=""x-default"">保修声明。

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|---|---|
| **Material Transfer Agreement required** | Yes |

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