NCI-H23

305044

GENERAL INFORMATION

Description

□细胞系是根据一名 59 岁黑人男性肺腺癌患者治疗前的肺癌组织建立的。细胞携带 K-ras 12 基因突变和 p53 基因 246 密码子突变（ATC →ATG, 异亮氨酸 -> 蛋氨酸）。细胞表达 C-myc ′ L-myc ′ v-src ′ v-abl ′ v-erb B ′ c-raf 1 ′ Ha-ras ′ Ki-ras 和 N-ras RNA。□细胞系的 PDGF A 和 B 链、转化生长因子α和β以及表皮生长因子受体（EGFR）的 mRNA 表达不一致。NCI-H23 的 c-myc DNA 扩增水平高出 20 倍，但未检测到 c-myc RNA 扩增。细胞的角蛋白 5+8 和 18 以及波形蛋白染色呈阳性，但神经丝染色呈阴性。细胞左旋多巴脱羧酶阴性。细胞可在软琼脂糖中形成菌落，效率为 9.7%。

Tissue	肺部
Disease	肺腺癌
Metastatic site	不适用（原发性肺腺癌；建立治疗线时无记录在案的远处转移）

Applications

肺腺癌研究；KRAS G12C突变型非小细胞肺癌生物学；EGFR通路分析；c-Myc扩增研究；药物敏感性（靶向药物、化疗）；NCI-60细胞系研究；PDGF/TGF-β信号传导

Synonyms

- NCI-H23
- NCI.H23
- NCI H23
- H-23
- NCIH23

CLASSIFICATION

Organism	Human
Sex	Male
Growth properties	Adherent
GMO status	Non-GMO

GMO status details

No genetic modification; wildtype lung adenocarcinoma cell line. Somatic mutations (KRAS G12C, TP53 codon 246) are endogenous tumor-derived changes.

Biosafety level	1

CHARACTERISTICS

Morphology	上皮细胞
Cell type	上皮细胞
Doubling time	38 小时

IDENTIFIERS

Citation

NCI-H23（Cytion 目录号 305044）

Cytion GmbH
Nikola-Tesla-Str. 3
69124 Heidelberg
Tel: +49 (0)6221 405780
info@cytion.com
cytion.com

Registered office Heidelberg
VAT ID: DE283292917
Local court Mannheim - HRB 714394
CEO / Geschäftsführer: Jonathan Steubing

Banking information
Sparkasse Heidelberg
IBAN: DE35 6725 0020 0009 2076 86
BIC: SOLADES1HDB

NCBI TaxID	9606
Cellosaurus	CVCL_1547

EXPRESSION AND SUSCEPTIBILITY

Protein expression

Myc+□src+□abl+□erb+□ras+□sis -

HANDLING AND CULTURE

Culture medium

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

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

Supplements

□□□□□□□ 10% FBS

Dissociation reagent	Accutase

Subculturing

□□□□□□□□□□□□□□□□□□□□□ PBS □□□T25 □□□ 3-5 □□ PBS□T75 □□□ 5-10 □□□□□□ Accutase □□□□□□□T25 □□□ 1-2 □□□T75 □□□ 2.5 □□□□□□□□□□□□ 8-10 □□□□□□□□□□□□□ 10 □□□□□□□□□□□□□□□□□□□ 300xg □□ 3 □□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□

Split ratio	1 □ 3
Seeding density	1 □ 3 × 10⁴ □□□/cm²
Fluid renewal	□□ 2 □ 3 □
Post-thaw recovery	□□□□□□□□ 5 × 10⁴ □/cm² □□□□□□□□□□□□□□□□□□□□□□□□□□□□ 24 □□□

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

□□□□ PCR □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
□□

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

Storage conditions

如需长期保存，可将样品瓶放入气相液氮中，温度约为 -150 至 -196 ℃。在-80 °C下保存只能作为转入液氮前的短暂过渡。

Shipping conditions

冷冻保存的细胞系用干冰装运，并用经过验证的隔热包装和足够的制冷剂在整个运输过程中保持约 -78 °C 的温度。收到货后，应立即检查容器，并立即将小瓶转移到适当的储藏室。

DONOR

Donor age	51 年
Ethnicity	非洲

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，我们的细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。

有关详细信息，请参阅我们的 <a href="" /Who-we-are/Warranty/"" hreflang=""x-default"">保修声明。

Material Transfer Agreement required	Yes

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