HCC1569

305784

GENERAL INFORMATION

Description

HCC1569 □一种人类乳腺癌细胞系，来源于原发性导管癌。它具有基底样表型，雌激素受体（ ER）阴性、HER2 阳性，□一种具有独特临床和治疗意义的分子亚型。与其他基底样乳腺癌一样，HCC1569缺乏ER和孕激素受体（PR）的表达，但它显示出ERBB2（HER2）癌基因的扩增和过表达，而ERBB2□HER2导向疗法的关键靶点。该细胞系表现出高度非整倍体，并存在与乳腺癌生物学相关的多种基因组改变。

HCC1569 被纳入大规模基因组剖析工作，如癌症细胞系百科全书（ CCLE）和整合突变、拷贝数、甲基化和表达数据的相关研究。这些数据集显示， HCC1569 携带的结构变异和拷贝数扩增与侵袭性乳腺肿瘤（包括涉及 HER2 的肿瘤）一致。功能基因组筛选强调了该细胞系对 HER2 信号通路的依赖性，支持将其用于评估 HER2 靶向疗法和耐药机制。

此外，HCC1569 还具有 HLA 基因型和表达谱特征，这对免疫疗法的开发具有重要意义。它已被列入 HLA 分型和新抗原预测目录，为探索 HER2 阳性乳腺癌背景下的 T 细胞表位呈现和免疫识别提供了机会。这种免疫基因组注释使 HCC1569 不仅成为研究致癌信号转导的宝贵资源，也成为评估肿瘤与免疫相互作用和设计个性化免疫疗法的宝贵资源。

Tissue	乳房
Disease	乳腺导管癌

Synonyms

- HCC-1569
- Hamon Cancer Center 1569

CLASSIFICATION

Organism	Human
Sex	Female
Growth properties	Adherent
Biosafety level	1

CHARACTERISTICS

Morphology	上皮细胞
Cell type	上皮细胞

Karyotype

多倍体

Doubling time	45 小时

IDENTIFIERS

Citation

HCC1569（Cytion 目录号 305784）

NCBI TaxID	9606
Cellosaurus	CVCL_1255

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Banking information
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EXPRESSION AND SUSCEPTIBILITY

Protein expression

□□□□□□□□□□□□□□□□□

Antigen expression

□□□□□ 2 (EGP2)□□□□□□ 19

Oncogenes

Her2/neu+; p53-

Mutational profile

□□□BRCA2, Simple, p.Asn1100Thr (c.3299A>C), Heterozygous, BRCA2, Simple, p.Val1862fs*1 (c.5578delA), Heterozygous, FHIT, Simple, p.Val97Phe (c.289G>T) (651G>T), dbSNP=rs139666727, Heterozygous, Note=Germline□□□, PTEN, Simple, p.Lys267Argfs*9 (c.800delA) (p.Leu265fs, c.795delA), □□□, TP53, Simple, p.Glu294Ter (c.880G>T), □□□

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
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

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

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

Storage conditions

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Shipping conditions

□□ -78 °C □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

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DONOR

Donor age	70岁
Ethnicity	非洲裔美国人

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 □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。

Disclaimer

我们提供的细胞仅用于体外实验室研究目的，不用于临床或诊断用途，也不得用于人类或兽医目的。用户必须遵守在研究环境中处理和使用这些细胞的所有适用准则和法规。

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 □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