HROC348

300719

GENERAL INFORMATION

Description

HROC348 □一种人类结直肠癌细胞系，来源于一名成年男性乙状结肠癌患者切除的原发肿瘤。该肿瘤被归类为中晚期腺癌（ T3，G3，N2），显示有明显的局部浸润和淋巴结受累，与侵袭性肿瘤行为一致。该癌起源于乙状结肠，这 □散发性结直肠癌的常见解剖部位，并表现出微卫星稳定性（ MSS），使其与染色体不稳定性（CIN）亚型相一致，而不□ MSI 高突变类结直肠肿瘤。

HROC348 的分子图谱显示 KRAS 和 BRAF 均为野生型，表明这些基因中不存在常见的激活突变，而这些突变经常与结直肠癌的进展和耐药性有关。这种分子背景使 HROC348 特别适合研究非突变的 RAS/RAF 信号转导及其对肿瘤生长、治疗反应和耐药机制的影响。该细胞系不显示 CpG 岛甲基化表型（CIMP），进一步支持了其在传统（非高突变）结直肠癌亚组中的分类。

临床上，该肿瘤的淋巴结转移阳性（LN_pos = 2），但远处转移（M）只有一次，而且没有右侧结肠受累的记录，符合左侧结直肠癌的特征。这些特征与 MSS 状态和分子标记相结合，使 HROC348 成为研究左侧、KRAS/BRAF 野生型、微卫星稳定型结直肠腺癌的代表性模型。它还为 MSS 肿瘤中靶向疗法和免疫调节药物的临床前测试提供了转化价值，MSS 肿瘤通常对免疫检查点阻断反应较小。

Tissue	乙状结肠
Disease	癌症
Metastatic site	未报告（乙状结肠原发性腺癌；取样时未确认有远处转移）

Applications

结直肠癌研究；KRAS/BRAF野生型微卫星不稳定型（MSS）结直肠癌生物学；左侧结直肠癌建模；RAS/RAF未突变肿瘤的药物敏感性；HROC Linnebacher生物样本库研究；结直肠癌免疫疗法评估；肿瘤学临床前研究

CLASSIFICATION

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

GMO status details

No genetic modification; wildtype patient-derived CRC cell line from the HROC Linnebacher biobank. KRAS wild-type, BRAF wild-type, MSS, CIMP-negative.

Biosafety level	1

CHARACTERISTICS

Morphology	上皮样
Cell type	上皮细胞
MSI status	MSS

IDENTIFIERS

Citation

HROC348（Cytion 目录号 300719）

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

NCBI TaxID	9606
Cellosaurus	Not assigned

HANDLING AND CULTURE

Culture medium

DMEM:Ham's F12□1:1□□w: 3.1 g/L □□□□w: 2.5 mM L-□□□□□w: 15 mM HEPES□w: 0.5 mM □□□□□w: 1.2 g/L NaHCO3□Cytion □□□□ 820400a□□

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

Supplements

□□□□□□□ 10% FBS

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

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

DONOR

Donor age	77 □

Ethnicity	高加索人

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。

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。

Third-party agreements apply	Yes