KYSE180

305450

GENERAL INFORMATION

Description

KYSE180□胞系是一种源自原发肿瘤的人食管鳞状□胞癌（ESCC）模型。该□胞系被归类为中度分化型，并表现出一系列ESCC特有的遗传改变，包括NRF2（NFE2L2）信号通路的突变。具体而言，KYSE180□胞携带NRF2 D77V突变，该突变导致NRF2过度活化——NRF2是一种参与氧化应激反应和肿瘤进展的转录因子。

KYSE180□胞被广泛用于研究食管鳞状□胞癌的分子机制，包括化疗耐药性和致癌信号传导。 KYSE180□胞中NRF2活性的升高已被证实与化疗和放疗耐药性相关，因为 NRF2能增强□胞的抗氧化防御能力和代谢适应能力。 近期研究已鉴定出嘧啶胺等能够抑制NRF2信号传导的化合物，从而降低KYSE180□胞的增殖能力和致瘤性。此类研究凸显了在 NRF2高表达的癌症中靶向NRF2的治疗潜力。

此外，KYSE180□胞已被用于评估醛酮还原酶（AKR）家族酶（特别是AKR1C1和AKR1C2）在药物代谢和化学预防中的作用。 这些酶在KYSE180□胞中的表达上调，从而增强了该□胞系对乙基-3,4-二羟基苯甲酸酯（EDHB）等药物的敏感性。该化合物可诱导凋亡和自噬，表明该 □胞系在探索食管鳞状□胞癌（ESCC）的药物反应及□胞应激机制方面具有实用价值。

Tissue	食道
Disease	鳞状□胞癌

Synonyms

- KYSE 180
- KYSE-180
- Kyse180
- KY180

CLASSIFICATION

Organism	Human
Sex	Male
Growth properties	Adherent
Biosafety level	1

CHARACTERISTICS

Morphology	上皮样
MSI status	稳定 (MSS)

IDENTIFIERS

Citation

KYSE180（Cytion 产品编号 305450）

NCBI TaxID	9606
Cellosaurus	CVCL_1349

EXPRESSION AND SUSCEPTIBILITY

Mutational profile

突变：TP53，p.Ile195Thr (c.584T>C)，纯合子

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

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 □□□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□

Seeding density	2-4×10⁴/cm²
Fluid renewal	□□ 2 □

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

□□□□□□□□□□□□□□□□□□□□□□□□□□ -150 □ -196 ℃□□-80 °C□□□□□□□□□□□□□□□□□□□

Shipping conditions

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

DONOR

Donor age	53 □
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。

Material Transfer Agreement required	Yes

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