HK EGFP-alpha-tubulin/H2B-mCherry

300670

GENERAL INFORMATION

Description

HK EGFP-α-tubulin/H2B-mCherry HeLa Kyoto □胞系是一种精心设计的模型，用于详□观察□胞过程。该克隆系经稳定转染后可表达两种荧光蛋白融合体，从而实现染色质和微管网络的实时成像。红色荧光蛋白 mCherry 与核心组蛋白 H2B 融合，形成 H2B-mCherry。这种融合蛋白由 pH2B-mCherry-IRES-neo3 质粒表达，可作为染色质标记，在活□胞成像中突出显示核 DNA，促进染色质动力学和核结构研究。

此外，该□胞系通过 pmEGFP-α-tubulin-IRES-puro2b 质粒表达融合了α-微管蛋白的单体增强型 GFP（绿色荧光蛋白）。GFP-α-微管蛋白融合物发出鲜艳的绿色荧光，勾勒出□胞内的微管结构。这一特性对于研究微管的组织、动力学及其在 □胞分裂和□胞内运输中的作用至关重要。这些构建体的稳定整合可对这些 □胞成分进行连续、长期的观察，而无需重复转染，从而减少了变异性，提高了实验结果的可靠性。转染后的耐药性选择确保了该品系 □胞表达的稳定性和一致性。

Tissue	子宫颈
Disease	癌症

Synonyms

- HeLa Kyoto EGFP-a-tubulin/H2B-mCherry
- HeLa H2B-mRFP and mEGFP-alpha-tubulin

CLASSIFICATION

Organism	Human
Sex	Female
Growth properties	Adherent
GMO status	GMO-S1

GMO status details

GMO-S1: This HeLa Kyoto line contains EGFP-α-tubulin and H2B-mCherry constructs for simultaneous imaging of microtubules and chromatin. This classification applies only within Germany and may differ elsewhere.

Biosafety level	1

CHARACTERISTICS

Morphology	具有镶嵌石形状的上皮样□胞
Doubling time	24 小时

IDENTIFIERS

Citation

HK EGFP-α-微管蛋白/H2B-mCherry（Cytion 目录号 300670）

NCBI TaxID	9606
Cellosaurus	CVCL_L802
Depositor	艾伦伯格实验室（EMBL）

EXPRESSION AND SUSCEPTIBILITY

Protein expression

EGFP-α-tubulin, H2B-mCherry□□□/□□□ 1...589 / Pcmv, 652...1029 H2B, 1042...1752 / mCherry, 2983...3777 / KanR/NeoR

Viruses

□□□□□□□□□□□□□□□□□□□□□□

Products

CMV □□□□□□□□ H2B□□□□□□□□□□

HANDLING AND CULTURE

Culture medium

DMEM□w□4.5 □/□□□□□w□4 □□□ L-□□□□□w□3.7 □/□ NaHCO3□w□1.0 □□□□□□□□Cytion □□ 820300a□□

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	1 × 10^4 □□□/□□□□
Fluid renewal	□□ 2 □ 3 □
Post-thaw recovery	□□□□□□□□5×10^4□□□/□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□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

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Banking information
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BIC: SOLADES1HDB

Shipping conditions

冷冻保存的□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	30年
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。

Third-party agreements apply	Yes

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