B-LCL-CDG5

302016

GENERAL INFORMATION

Description

B-LCL-CDG5□一种EBV转化的B淋巴细胞系，来源于一名PMM2-CDG患者，PMM2*基因突变导致先天性糖基化紊乱（CDG）。这种疾病会损害糖蛋白和糖脂上糖结构的正常合成和附着，影响多个器官系统。磷酸甘露糖突变酶 2（PMM2）的缺乏会破坏甘露糖-6-磷酸向甘露糖-1-磷酸的转化，而甘露糖-1-磷酸□糖基化过程中的一个关键步骤，从而导致细胞功能缺陷和全身并发症。

B-LCL-CDG5作为一种EBV-immortalized B细胞系，□研究*PMM2*突变的生化和分子效应的重要模型。这种细胞系使研究人员能够研究糖基化缺陷、 PMM2 酶活性以及糖基化受损的细胞后果。此外，它还为测试潜在的治疗方法（如药理伴侣、酶增强疗法或底物补充策略）提供了一个平台。 B-LCL-CDG5与其他CDG患者衍生细胞系相结合，有助于增进我们对PMM2-CDG的了解，并开发有针对性的治疗方案。

Tissue	外周血
Disease	EBV转化B淋巴母细胞样细胞系（B-LCL）；PMM2-CDG（先天性糖基化障碍，源自患者）
Metastatic site	不适用（EBV转化性B细胞淋巴细胞样细胞瘤；无转移）

Applications

免疫细胞中 CDG 作用的基因分型、功能测试（如 B 细胞表面抗原）、细胞毒性药物测试。突变分析、细胞凋亡机制分析、 HLA 分型、不同细胞糖蛋白的糖基化缺陷对不同功能的影响。

CLASSIFICATION

Organism	Human
Sex	Female
Growth properties	Suspension
GMO status	GMO-S2

GMO status details

GMO-S2: This B-LCL contains a stably maintained EBV episome encoding viral latent-phase genes (EBNA-1/-2/-3, LMP-1/-2). EBV is a risk group 2 pathogen; BSL-2 containment required. This classification applies within Germany; regulations may differ elsewhere.

Biosafety level	2

CHARACTERISTICS

Morphology	圆形电池
Cell type	B 淋巴细胞

IDENTIFIERS

Citation

B-LCL-CDG5（Cytion 目录号 302016）

NCBI TaxID	9606
Cellosaurus	Not assigned

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Banking information
Sparkasse Heidelberg
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BIC: SOLADES1HDB

EXPRESSION AND SUSCEPTIBILITY

Viruses

□□□□EBV

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

Subculturing

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Fluid renewal	□□□□□□□□□□
Post-thaw recovery	□□

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

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

Shipping conditions

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

DONOR

Ethnicity	□□□□

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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。

Material Transfer Agreement required	Yes

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