DC2.4

305515

GENERAL INFORMATION

Description

DC2.4 □胞系是一种源于骨髓的永生化小鼠树突状 □胞系。它通常用于研究树突状□胞（DC）生物学、免疫反应和免疫疗法的开发。 DC2.4 □胞的特点是作为抗原递呈□胞（APC），并表达树突状□胞的典型表面标记，如 CD11c 和 MHC I 类分子。然而，在标准培养条件下，它们表现出不成熟的表型， MHC II 类和成本刺激分子（如 CD40 和 CD80）的表达量较低。这使它们成为研究直流 □胞成熟及其后续免疫功能所需的机制和刺激的有用工具。

研究表明，特定刺激可诱导 DC2.4 □胞成熟。值得注意的是，暴露于γ干扰素（IFN-γ）会导致 MHC II 类、CD40、CD80 和 CCR7 的显著上调，以及□胞因子分泌的增加，包括 IL-6、IL-12 和 TNF-α。已证明IFN-γ成熟的DC2.4□胞能在体外和体内有效激活CD8+□胞毒性T□胞，增强抗肿瘤免疫力。例如，经 IFN-γ 处理、抗原刺激的 DC2.4 □胞已被证明能诱导强大的 CD8+ T □胞反应，并在小鼠模型中提供保护性抗肿瘤效应。这凸显了该 □胞系在癌症免疫疗法研究和疫苗开发中的实用性。

此外，DC2.4 □胞还被用来研究宿主与病原体之间的相互作用，因为它们对各种免疫挑战的反应可以模拟先天性免疫系统激活的各个方面。对 DC2.4 □胞外泌体 miRNA 图谱的分析，尤其是在感染弓形虫等病原体时的分析，有助于深入了解树突状 □胞信号传导和免疫通讯的分子机制。外泌体 miRNA 在感染反应中的不同表达表明了它们在调节宿主免疫中的潜在作用，并突出了 DC2.4 在外泌体和基于 RNA 的免疫研究中的实用性。

Tissue	骨髓

Synonyms

- DC 2.4

CLASSIFICATION

Organism	Mouse
Sex	Unspecified
Growth properties	Adherent
GMO status	GMO-S1

GMO status details

GMO-S1: This murine dendritic cell line (DC2.4) contains retroviral constructs encoding murine GM-CSF, v-myc and v-raf introduced by transduction, supporting transformation and growth. The inserts are stably present in the dendritic cell-derived line. This classification applies only within Germany and may differ elsewhere.

Biosafety level	1

CHARACTERISTICS

Cell type	树突状□胞

IDENTIFIERS

Citation

DC2.4（Cytion 目录编号 305515）

NCBI TaxID	10090
Cellosaurus	CVCL_J409

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

EXPRESSION AND SUSCEPTIBILITY

Viruses

□□□□□□□□□□ J2

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□1% NEAA □ 10mM HEPES

Dissociation reagent	Accutase

Subculturing

□□□□□□□□□□□□□□□□□□□□ PBS □□□T25 □□□ 3-5 □□ PBS□T75 □□□ 5-10 □□□□□□ Accutase □□□□□□□T25 □□□ 1-2 □□□T75 □□□ 2.5 □□□□□□□□□□□□ 8-10 □□□□□□□□□□□□□ 10 □□□□□□□□□□□□□□□□□□□ 300xg □□ 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

Breed / subspecies	C57BL/6
Donor age	□□□

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
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