Bend.3

305265

GENERAL INFORMATION

Description

Bend.3 □胞系来源于小鼠脑内皮□胞，被广泛用于神经血管研究。这些□胞是研究血脑屏障（BBB）的模型，血脑屏障是调节物质从血液进入大脑的关键结构。 Bend.3 □胞有助于探索支配血脑屏障完整性、渗透性和运输功能的分子和 □胞机制。研究人员利用 Bend.3 □胞研究各种神经系统疾病的病理生理学，如中风、阿尔茨海默病和多发性硬化症，这些疾病的特征就是 BBB 功能障碍。

Bend.3 □胞具有内皮□胞的特征，包括表达紧密连接蛋白，如闭塞素、克劳丁蛋白和闭塞带 -1（ZO-1），这些蛋白对维持 BBB 的选择性通透性至关重要。它们还表达 CD31 和 von Willebrand 因子等典型的内皮□胞标记。Bend.3 □胞对炎症刺激和氧化应激有反应，因此适合用于研究 BBB 破坏和神经炎症。此外，Bend.3 □胞系还可用于评估药剂穿越 BBB 的有效性和安全性，从而帮助开发治疗中枢神经系统疾病的药物。 Bend.3□胞在神经血管单元建模中的实用性凸显了它们在促进我们对脑内皮 □胞生物学的了解和神经治疗药物开发方面的重要性。

Tissue	大脑、大脑皮层
Disease	内皮□胞瘤

Synonyms

- bEND.3
- b.End3
- bEnd.3
- bEnd3
- BEND3
- brain-derived Endothelial cells.3

CLASSIFICATION

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

GMO status details

GMO-S1: This murine endothelial cell line (bEnd.3) contains a polyomavirus middle T antigen encoded by the NTKmT retroviral vector, driving transformation and enhanced proliferation. The construct is stably present in brain microvascular endothelial cells. This classification applies only within Germany and may differ elsewhere.

Biosafety level	1

CHARACTERISTICS

Morphology	内皮
Cell type	内皮□胞

IDENTIFIERS

Citation

Bend.3（Cytion 目录编号 305265）

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IBAN: DE35 6725 0020 0009 2076 86
BIC: SOLADES1HDB

NCBI TaxID	10090
Cellosaurus	CVCL_0170

EXPRESSION AND SUSCEPTIBILITY

Antigen expression

ICAM-1 +□VCAM-1 +□MAdCAM-1 +

Viruses

□□□□□□□□□□□□A2 □□□MPyV□□□ T □□□PyMT□

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

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

Breed / subspecies	BALB/c
Donor age	6 周

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

PRODUCT DETAILS

Composition table