MDCK-SIAT1

602281

GENERAL INFORMATION

Description

[illegible] MDCK-SIAT1 [illegible] Madin-Darby (MDCK) [illegible] 2,6-sialyltransferase (SIAT1) [illegible]-2,6 [illegible]-2,6 [illegible] MDCK-SIAT1 [illegible] MDCK-SIAT1 [illegible] (NAIs) [illegible]-2,6 [illegible] MDCK-SIAT1 [illegible] NAIs [illegible] MDCK [illegible] MDCK-SIAT1 [illegible]

Tissue	[illegible]

CLASSIFICATION

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

GMO status details

GMO-S1: This canine epithelial kidney cell line (MDCK-SIAT1) contains a pcDNA3.1GS construct encoding human 2,6-sialyltransferase (SIAT1), enabling expression of human-like sialylation patterns. The insert is stably present in MDCK cells. This classification applies only within Germany and may differ elsewhere.

Biosafety level	2

CHARACTERISTICS

Morphology	[illegible]
Doubling time	21 [illegible] 31 [illegible]

IDENTIFIERS

Citation

MDCK-SIAT1 ([illegible] Cytion 602281)

NCBI TaxID	9615
Cellosaurus	[CVCL_Z936]

EXPRESSION AND SUSCEPTIBILITY

Protein expression

□□□□□□□□□□□□□□□ ST6 beta-galactoside alpha-2,6-sialyltransferase 1 (ST6GAL1, SIAT1)

HANDLING AND CULTURE

Culture medium

DMEM, w: 4.5 □□□□/□□□□ □□□□□□, w: 4 □□□□□□□□□□□ □□□-□□□□□□□□□, w: 3.7 □□□□/□□□□ NaHCO3, w: 1.0 □□□□□□□□ □□□□ □□□□□□□□□□□□□□ (□□□□□□□□□□□□ Cytion 820300a)

Incubation atmosphere	37°C, 5%CO2, □□□□□□□□□□□□□

Supplements

□□□□□□□□□□□□□□□□□□□□□□□□□□□ FBS 10% □□□ G418 1 □□./□□.

Dissociation reagent	□□□□□□□□□

Subculturing

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

Seeding density	2 □□□ 4 x 10^4 □□□□□/□□.
Fluid renewal	2 □□□ 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

□□ PCR □□□□□□□□□□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□
□□ □□□□□□□□ □□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□□□□□□□□□□

Freeze medium	□□ □□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ (□□□□□□□ FBS) + 10% DMSO □□□ □□□□ CM-1 (□□□□□□□□ □□□□□□□□□□ Cytion 800100) □□□ □□

Storage conditions

□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ □□ −150 □□□ −196 °C □□□□□□□□□□□□□□□□□□□□□□□□□□ −80 °C □□□

Shipping conditions

□□ □□□ □□□□□□□ −78 °C □□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□ □□□

DONOR

Breed / subspecies	□□□□□□□□□□ □□□□□□□□□
Donor age	□□□□□□□□

LEGAL AND SAFETY

Safety precautions

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

Disclaimer

□□□ □□ □□ □□□□□□□□□□□□□□□□ □□□

Warranty

□□□Cytion □□
□□□
60 □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
□□
□□□□□□□□□□□□□□□□□□□□□□□ □□□/□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□
<a href=""/Who-we-are/Warranty/"" hreflang=""x-default"">□□□□□□□□□□□□□□□□□□□□□□□□□□□□□.

Material Transfer Agreement required	Yes