Human Dermal Fibroblast, Adult (HDF-Ad)

300606

GENERAL INFORMATION

Description

[illegible] (HDF-Ad) [illegible] HDF-Ad [illegible], [illegible], [illegible] HDF-Ad [illegible] UV [illegible]

Tissue	[illegible]

Applications

UVA-induced photoaging: oxidative stress, MAPK/AP-1 signaling and MMP-1 expression; Cellular senescence after UVA exposure (SA-β-gal, p16, SIRT1/mTOR signaling); Accumulation and degradation of advanced glycation end products in photoaged fibroblasts; Epigenetic regulation of MMP-1 and collagen loss in skin photoaging; Fibrosis research and systemic sclerosis (TGF-β/SMAD signaling, collagen production); Dermal compartment of reconstructed human skin for skin sensitization studies

Synonyms

- NHDF-Ad
- HFIB-D
- Human fibroblasts
- dermis adult
- provitro 1210411

DONOR

Donor age	Adult
Ethnicity	[illegible]

CLASSIFICATION

Organism	Human
Sex	Lot-specific
Growth properties	Adherent
Biosafety level	1

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Banking information
Sparkasse Heidelberg
IBAN: DE35 6725 0020 0009 2076 86
BIC: SOLADES1HDB

CHARACTERISTICS

Morphology	Spindle-shaped (fibroblast-like)
Cell type	Primary fibroblasts
Tumourigenic	[illegible]

HANDLING AND CULTURE

Culture medium

MEM, [illegible], [illegible] ([illegible])

Incubation atmosphere	37°C, 5%CO2, [illegible]

Supplements

[illegible] FBS 10%, hr-bFGF 2 [illegible], [illegible] L-glutamine [illegible] 2 [illegible]

Dissociation reagent	[illegible]-[illegible]

Subculturing

[illegible]: [illegible] PBS [illegible] PBS [illegible] Trypsin/EDTA [illegible] ([illegible] 1 [illegible]. [illegible] T25, 3 [illegible]. [illegible] T75) [illegible] 37°C [illegible] ([illegible] 5-10 [illegible])[illegible] Trypsin/EDTA [illegible] 37°C[illegible] 5% [illegible] 2-3 [illegible]

Seeding density	1 [illegible] 3*10^3 [illegible]/[illegible].²
Fluid renewal	2 [illegible] 3 [illegible]
Post-thaw recovery	Post-thaw viability ≥ 70 % viable cells. More than 80 % confluence within the expected recovery period.

Thawing and culturing

Thaw the cryovial quickly in a 37 °C water bath, swirling gently. Just before the last ice has melted, move the vial to a laminar flow hood and decontaminate its outer surface.
Transfer the cell suspension into a 15 ml centrifuge tube, add 10 ml of Fibroblast Growth Medium and centrifuge at 250 × g for 5 minutes.
Remove the supernatant and resuspend the cell pellet in 10 ml of Fibroblast Growth Medium. Check cell number and viability.
Divide the suspension between two 25 cm² culture flasks (5 ml each). Using two flasks reduces the risk of losing all cells if a passage fails.
Incubate at 37 °C, 5 % CO_2 and saturated humidity, with the screw caps opened by half a turn for gas exchange.
Change the medium after 24 hours to remove unattached cells, then every 48 to 72 hours, using pre-warmed medium only.
Subculture the cells at about 75 % confluence. Denser cultures undergo irreversible contact inhibition and stop proliferating. Use the subculture reagents recommended on the certificate of analysis.
Recommended seeding density: more than 4,000 cells/cm².

QUALITY CONTROL AND CRYOPRESERVATION

Sterility

[illegible] PCR [illegible]
[illegible]

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Freeze medium	[illegible] FBS 90% + DMSO 10% [illegible] CM-1 ([illegible] Cytion 800100) [illegible]

Storage conditions

[illegible] −150 [illegible] −196 °C [illegible] −80 °C [illegible]

Shipping conditions

[illegible] −78 °C [illegible]

EXPRESSION AND SUSCEPTIBILITY

Surface antigens

CD90⁺, CD31⁻, CD45⁻

Protein expression

[illegible]: CD73/CD90/CD105
[illegible]: CD14/CD34/CD45/HLA-DR

Viruses

[illegible]: HIV-1/2, HBV, HCV, HSV1/2, CMV, EBV, HHV6, Treponema pallidum, Toxoplasma gondii, Chlamydia trachomatis, Ureaplasma urealyticum, Ureoplasma parvum

IDENTIFIERS

Citation

[illegible] (HDF-Ad) ([illegible] Cytion 300606)

NCBI TaxID	9606

LEGAL AND SAFETY

Safety precautions

[illegible]

Warranty

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

Material Transfer Agreement required	Yes

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