



Leibniz Institute
DSMZ-German Collection
of Microorganisms
and Cell Cultures GmbH



MKN-45

ACC 409

Cell line:
MKN-45

DSMZ no.:
ACC 409

Species
validation:
human (*Homo sapiens*)

Cell type:
gastric adenocarcinoma

Origin:
established from the poorly differentiated adenocarcinoma of
the stomach (medullary type) of a 62-year-old woman

Reference(s):
[14790](#), [14795](#), [14886](#)

Biosafety level:

1

Permissions and restrictions:

[A](#)

DSMZ Cell Culture Data:

Morphology:

both spindle-shaped or oval cells growing in monolayers and single round cells or clumps in suspension; [image](#); [image](#); [image](#)

Medium:

80% RPMI 1640 + 20% h.i. FBS

Subculture:

cells can be difficult to culture; seed out at ca. $1-2 \times 10^6$ cells/80 cm²; split semi-confluent culture 1:3 to 1:5 every 5-10 days using trypsin/EDTA (for 5 min or longer); culture medium may turn acidic (yellow) very quickly, exchange of spent medium is advised, also the cells in suspension may be used to seed a new flask

Incubation:

at 37 °C with 5% CO₂

Doubling time:

ca. 60 hours

Harvest:

cell harvest of ca. $10-15 \times 10^6$ cells/80 cm²

Storage:

frozen with 70% medium, 20% FBS, 10% DMSO

DSMZ Scientific Data:

Mycoplasma:

initial contamination was eliminated with BM-Cyclin (tiamulin & minocycline), then negative in DAPI, microbiological culture, RNA hybridization and continuously in PCR assays

Immunology:

To inquire about expression of EpCAM and intermediate filaments, contact ulfert.rand@dsmz.de.

Authenticity:

STR analysis according to the global standard ANSI/ATCC ASN-0002.1-2021 (2021) resulted in an authentic STR profile of the reference STR database.

Cytogenetics:

human hypertriploid karyotype with 8% polyploidy - 70-73<3n>XX/XXX, -X, -2, -2, -4, -5, -5, +6, -11, -13, -13, -14, -18, -19, -20, -21, -22, +20mar, add(X)(q1?), der(1)(1pter->p21::1p11->q32::1q44->q11::?), i(2p), der(3)t(3;?9)(p14;q13/21), del(4)(q21), del(4)(q26), del(6)(q1?)x2, del(7)(p11), del(8)(p12), add(8)(q24), del(9)(p11), add(13)(p11), inv(16)(p13q22), add(17)(p1?), add(19)(q13), i(21q) - resembles published karyotype

Viruses:

ELISA: reverse transcriptase negative; PCR: EBV -, HBV -, HCV -, HIV-1 -, HIV-2 -, HTLV-1/2 -, MLV -, SMRV -

Supplied as:

Delivery form	Prices
Frozen culture	450,- €
Growing culture (please inquire for exact delivery time)	900,- €
DNA isolated from cell line (25 µg)	560,- €
DNA isolated from cell line (5 µg)	140,- €
Frozen culture	900,- €
Growing culture	1800,- €

(please inquire for exact delivery time)

DNA isolated from cell line (25 µg) 1120,- €

DNA isolated from cell line (5 µg) 280,- €

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