

Resource Summary Report

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MKN45

RRID:CVCL_0434

Type: Cell Line

Proper Citation

(RRID:CVCL_0434)

Cell Line Information

URL: https://web.expasy.org/cellosaurus/CVCL_0434

Proper Citation: (RRID:CVCL_0434)

Sex: Female

Defining Citation: [PMID:758928](#), [PMID:1370612](#), [PMID:1486568](#), [PMID:1778766](#), [PMID:1846553](#), [PMID:1933850](#), [PMID:2061947](#), [PMID:2105279](#), [PMID:3962675](#), [PMID:3986962](#), [PMID:6862145](#), [PMID:9023415](#), [PMID:9247707](#), [PMID:9290701](#), [PMID:9665481](#), [PMID:11107048](#), [PMID:11314020](#), [PMID:11668190](#), [PMID:15723654](#), [PMID:15767549](#), [PMID:15900046](#), [PMID:15901131](#), [PMID:18804159](#), [PMID:20164919](#), [PMID:20215515](#), [PMID:22336246](#), [PMID:22460905](#), [PMID:22531121](#), [PMID:23671654](#), [PMID:24587255](#), [PMID:24807215](#), [PMID:25343454](#), [PMID:25485619](#), [PMID:25877200](#), [PMID:25960936](#), [PMID:26589293](#), [PMID:27397505](#), [PMID:28196595](#), [PMID:29435981](#), [PMID:30894373](#), [PMID:31068700](#), [PMID:31978347](#), [PMID:35839778](#)

Comments: Caution: Was indicated not to have a TP53 mutation in PubMed=1370612 and PubMed=15900046., Omics: Transcriptome analysis by RNAseq., Omics: Transcriptome analysis by microarray., Omics: SNP array analysis., Omics: Protein expression by reverse-phase protein arrays., Omics: DNA methylation analysis., Omics: Deep quantitative proteome analysis., Omics: Deep exome analysis., Omics: Array-based CGH., Characteristics: MET-amplified, contains 12-13 copies of the gene (PubMed=29435981)., Population: Japanese., Part of: MD Anderson Cell Lines Project., Part of: JFCR45 cancer cell line panel., Part of: JFCR39 cancer cell line panel., Part of: COSMIC cell lines project., Part of: Cancer Dependency Map project (DepMap) (includes Cancer Cell Line Encyclopedia - CCLE).

Category: Cancer cell line

Name: MKN45

Synonyms: MKN-45, MKN 45

Cross References: BTO:BTO_0001225, CLO:CLO_0007733, CLO:CLO_0050797, EFO:EFO_0002832, MCCL:MCC:0000329, ArrayExpress:E-MTAB-783, ArrayExpress:E-MTAB-2706, ArrayExpress:E-MTAB-2770, ArrayExpress:E-MTAB-3610, BioGRID_ORCS_Cell_line:404, BioSample:SAMN03473237, BioSample:SAMN03473585, BioSample:SAMN10988555, cancercellines:CVCL_0434, CCRID:1101HUM-PUMC000229, CCTCC:GDC0220, Cell_Model_Passport:SIDM00247, CGH-DB:120-1, CGH-DB:9022-4, ChEMBL-Cells:ChEMBL3307603, ChEMBL-Targets:ChEMBL614354, CLS:300489, Cosmic:685596, Cosmic:801339, Cosmic:848147, Cosmic:848373, Cosmic:873711, Cosmic:877042, Cosmic:887256, Cosmic:888827, Cosmic:897535, Cosmic:918497, Cosmic:922696, Cosmic:925340, Cosmic:926114, Cosmic:968349, Cosmic:983727, Cosmic:1001651, Cosmic:1001655, Cosmic:1007602, Cosmic:1090461, Cosmic:1093299, Cosmic:1187283, Cosmic:1223589, Cosmic:1329185, Cosmic:1436026, Cosmic:1460707, Cosmic:1518241, Cosmic:1518255, Cosmic:1582430, Cosmic:1627265, Cosmic:1995510, Cosmic:2036663, Cosmic:2807633, Cosmic:2823225, Cosmic-CLP:925340, DepMap:ACH-000356, DSMZ:ACC-409, DSMZCellDive:ACC-409, EGA:EGAS00001000610, EGA:EGAS00001000978, GDSC:925340, GEO:GSM552364, GEO:GSM562395, GEO:GSM618013, GEO:GSM618014, GEO:GSM618015, GEO:GSM618016, GEO:GSM827532, GEO:GSM828836, GEO:GSM844607, GEO:GSM887324, GEO:GSM888400, GEO:GSM1374681, GEO:GSM1670113, IARC_TP53:21633, IARC_TP53:30213, IBRC:C10137, JCRB:JCRB0254, KCLB:80103, LiGeA:CCL_725, LINCS_LDP:LCL-1535, NCBI_Iran:C615, PharmacDB:MKN45_938_2019, PRIDE:PXD030304, Progenetix:CVCL_0434, PubChem_Cell_line:CVCL_0434, RCB:RCB1001, Wikidata:Q28473066

ID: CVCL_0434

Record Creation Time: 20250131T201403+0000

Record Last Update: 20250131T203015+0000

Ratings and Alerts

No rating or validation information has been found for MKN45.

No alerts have been found for MKN45.

Data and Source Information

Source: [Cellosaurus](#)

Usage and Citation Metrics

We found 932 mentions in open access literature.

Listed below are recent publications. The full list is available at [FDI Lab - SciCrunch.org](https://www.fdi-lab.com/sci-crunch).

Laurino S, et al. (2025) The inhibition of SLC8A1 promotes Ca²⁺-dependent cell death in Gastric Cancer. *Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie*, 182, 117787.

Kim B, et al. (2024) Predictive biomarkers for metachronous gastric cancer development after endoscopic resection of early gastric cancer. *Cancer medicine*, 13(16), e70104.

Cao F, et al. (2024) Multiple approaches revealed MGc80-3 as a somatic hybrid with HeLa cells rather than a gastric cancer cell line. *International journal of cancer*, 154(1), 155.

Cao T, et al. (2024) Cancer SLC6A6-mediated taurine uptake transactivates immune checkpoint genes and induces exhaustion in CD8⁺ T cells. *Cell*, 187(9), 2288.

Seeneevassen L, et al. (2024) Targeting metastasis-initiating cancer stem cells in gastric cancer with leukaemia inhibitory factor. *Cell death discovery*, 10(1), 120.

Ho CC, et al. (2024) Stool Protein Mass Spectrometry Identifies Biomarkers for Early Detection of Diffuse-type Gastric Cancer. *Cancer prevention research (Philadelphia, Pa.)*, 17(8), 361.

Lakhani NJ, et al. (2024) First-in-Human Study with Preclinical Data of BCL-2/BCL-xL Inhibitor Pelcitoclax in Locally Advanced or Metastatic Solid Tumors. *Clinical cancer research : an official journal of the American Association for Cancer Research*, 30(3), 506.

Wirsik NM, et al. (2024) Targeting the receptor tyrosine kinase MerTK shows therapeutic value in gastric adenocarcinoma. *Cancer medicine*, 13(7), e6866.

Sasahara M, et al. (2024) Therapeutic antibody targeting natriuretic peptide receptor 1 inhibits gastric cancer growth via BCL-2-mediated intrinsic apoptosis. *International journal of cancer*, 154(7), 1272.

Chen S, et al. (2024) Anchoring of hyaluronan glycocalyx to CD44 reduces sensitivity of HER2-positive gastric cancer cells to trastuzumab. *The FEBS journal*.

Feng T, et al. (2024) Curcumol Enhances the Sensitivity of Gastric Cancer to Cisplatin Resistance by Inducing Ferroptosis Through the P62/KEAP1/NRF2 Pathway. *Integrative cancer therapies*, 23, 15347354241294043.

Yu J, et al. (2023) VPS35 promotes cell proliferation via EGFR recycling and enhances EGFR inhibitors response in gastric cancer. *EBioMedicine*, 89, 104451.

Guo Z, et al. (2023) Tumor-promoting action of ubiquitin protease 43 in gastric cancer progression through deubiquitination and stabilization of stress-inducible phosphoprotein 1. *Experimental cell research*, 430(2), 113714.

Zhang C, et al. (2023) Centrosomal protein 120 promotes centrosome amplification and gastric cancer progression via USP54-mediated deubiquitination of PLK4. *iScience*, 26(1), 105745.

Chen C, et al. (2023) 6-Phosphogluconate dehydrogenase inhibition arrests growth and induces apoptosis in gastric cancer via AMPK activation and oxidative stress. *Open life sciences*, 18(1), 20220514.

Deng M, et al. (2023) Helicobacter pylori-induced NAT10 stabilizes MDM2 mRNA via RNA acetylation to facilitate gastric cancer progression. *Journal of experimental & clinical cancer research : CR*, 42(1), 9.

Giraud J, et al. (2023) CD44v3 is a marker of invasive cancer stem cells driving metastasis in gastric carcinoma. *Gastric cancer : official journal of the International Gastric Cancer Association and the Japanese Gastric Cancer Association*, 26(2), 234.

Zhu S, et al. (2023) CDK1 bridges NF- κ B and β -catenin signaling in response to H. pylori infection in gastric tumorigenesis. *Cell reports*, 42(1), 112005.

Li D, et al. (2023) CST1 inhibits ferroptosis and promotes gastric cancer metastasis by regulating GPX4 protein stability via OTUB1. *Oncogene*, 42(2), 83.

Sun W, et al. (2023) Cyanidin-3-O-Glucoside Induces the Apoptosis of Human Gastric Cancer MKN-45 Cells through ROS-Mediated Signaling Pathways. *Molecules (Basel, Switzerland)*, 28(2).