

Resource Summary Report

Generated by [NIF](#) on Sep 16, 2026

MDCK

RRID:CVCL_0422

Type: Cell Line

Proper Citation

RRID:CVCL_0422

Cell Line Information

URL: https://web.expasy.org/cellosaurus/CVCL_0422

Proper Citation: RRID:CVCL_0422

Description: Cell line MDCK is a Spontaneously immortalized cell line with a species of origin *Canis lupus familiaris* (Dog)

Sex: Female

Defining Citation: [PMID:222773](#), [PMID:567227](#), [PMID:5918973](#), [PMID:6480288](#), [PMID:12667817](#), [PMID:13901412](#), [PMID:19941903](#), [PMID:21819694](#), [PMID:21982418](#), [PMID:24058646](#), [PMID:25903999](#), [PMID:32854295](#), [PMID:33122286](#), [PMID:33389257](#)

Comments: Caution: There seem to be two distinct cell lines which were assigned NCBI_Iran catalog number C426., Virology: Not susceptible to infection by SARS coronavirus 2 (SARS-CoV-2) (COVID-19) (PubMed=33389257)., Characteristics: Used for virus production for vaccine development, toxicology and industrial biotechnology research, and high-throughput screening (ATCC=CCL-34)., Part of: Naval Biosciences Laboratory (NBL) collection (transferred to ATCC in 1982)., Group: Vaccine production cell line.

Category: Spontaneously immortalized cell line

Organism: *Canis lupus familiaris* (Dog)

Name: MDCK

Synonyms: MDCK (NBL-2), MDCK(NBL-2), NBL-2, Madin-Darby Canine Kidney, Madin Darby Canine Kidney

Cross References: BTO:BTO_0000837, CLO:CLO_0007646, CLO:CLO_0007647, CLO:CLO_0050861, EFO:EFO_0022746, MCCL:MCC:0000319, CLDB:cl3417, CLDB:cl3418, CLDB:cl3419, CLDB:cl3420, CLDB:cl3421, CLDB:cl3422, CLDB:cl3423,

CLDB:cl3424, CLDB:cl3425, ABM:T8979, AddexBio:P0014003/4928, ATCC:CCL-34, ATCC:CRL-6253, BCRC:60004, BCRJ:0168, BEI_Resources:NR-2628, CCLV:CCLV-RIE 0083, CCRID:1101CAN-PUMC000078, CCRID:1102CAN-NIFDC00045, CCRID:3101CANGNO23, CCRID:4201CAN-CCTCC00012, CCTCC:GDC0012, CCTCC:GDC0401, ChEMBL-Cells:ChEMBL3308370, ChEMBL-Targets:ChEMBL614068, CLS:602280, ECACC:84121903, ECACC:85011435, FCS-free:41-14-321-2-3-3, FCS-free:41-14-427-1-4-3, FCS-free:41-14-47-1-8-9, FCS-free:41-14-585-1-18-2, FCS-free:41-14-587-1-18-2, FCS-free:41-14-588-2-18-2, GEO:GSM4009056, GEO:GSM4009057, GEO:GSM4009058, IBRC:C10556, IZSLER:BS CL 64, JCRB:IFO50071, JCRB:JCRB9029, KCB:KCB 2006105YJ, KCLB:10034, Lonza:153, MeSH:D061985, NCBI_Iran:C426, PRIDE:PXD014768, PRIDE:PXD024031, PubChem_Cell_line:CVCL_0422, RCB:RCB0995, TOKU-E:2403, TOKU-E:3636, Ubigen:YC-C005, Wikidata:Q28335011

ID: CVCL_0422

Record Creation Time: 20220427T220757+0000

Record Last Update: 20260913T004836+0000

Ratings and Alerts

No rating or validation information has been found for MDCK.

Warning: Discontinued: ATCC; CRL-6253

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Data and Source Information

Source: [Cellosaurus](#)

Usage and Citation Metrics

We found 7677 mentions in open access literature.

Listed below are recent publications. The full list is available at [NIF](#) .

Bhavsar D, et al. (2026) Structural and functional characterization of the antigenicity of influenza A virus hemagglutinin subtype H15. Cell reports, 45(1), 116773.

Lam JY, et al. (2026) Nasal RNA-scaffold-protein vaccine protects mice from human H5N1 clade 2.3.4.4b virus lethal infection and safeguards against vaccine-unmatched viruses. EBioMedicine, 126, 106228.

Parra LG, et al. (2026) Cell Membrane Biogenesis: A Matter of Survival. Its Role in Renal Epithelia Restitution After Calcium Oxalate Injury. *Journal of cellular physiology*, 241(5), e70187.

Felicetti T, et al. (2026) Streamlined Synthesis and Structure-Activity Relationship Analysis of 2-Amidothiophene-3-Carboxamides Targeting Influenza Polymerase PA-PB1 Heterodimerization. *ChemMedChem*, 21(10), e70314.

Dier AK, et al. (2026) Tubular basement membrane damage promotes renal fibrosis via an ETV5/TGFB1/SOX9 axis in proximal tubular epithelial cells after acute kidney injury. *Cellular signalling*, 146, 112684.

Yu Y, et al. (2026) HMGA2 regulates fear and growth: Canine GWAS and functional evidence. *iScience*, 29(7), 116429.

Zhu Y, et al. (2026) Fasting impairs humoral immunological memory by γ -hydroxybutyrate-mediated depletion of plasma cells. *Immunity*, 59(4), 1006.

Huang Y, et al. (2026) Mechanosensation promotes broad-spectrum antiviral defense through membrane remodeling. *Cell chemical biology*, 33(3), 307.

Antunes Fernandes K, et al. (2026) Maternal helminths rewire the microbiota to promote offspring antiviral immunity. *Cell host & microbe*, 34(6), 1050.

Kaur T, et al. (2026) Loss of Regulator of G Protein Signaling 11 Promotes Protumorigenic Features in Pancreatic Cancer. *Molecular cancer research : MCR*, 24(1), 34.

Kong W, et al. (2025) Neuroendocrine cells orchestrate regeneration through Desert hedgehog signaling. *Cell*, 188(18), 5020.

Duan H, et al. (2025) Computational design and improvement of a broad influenza virus HA stem targeting antibody. *Structure (London, England : 1993)*, 33(3), 489.

Park SH, et al. (2025) Charge-based supramolecular peptide nanocomplexes for oral delivery via transporter-driven endocytosis. *Biomaterials*, 329, 123903.

Zhang M, et al. (2025) Multi-Architecture Nanovaccines Against Pseudorabies Virus and Particle Size-Governed Immune Activation Mechanisms. *Advanced healthcare materials*, e03382.

Žeželj L, et al. (2025) Sensing of cardiolipin exposure on plasma membranes of apoptotic cells by EryA-mCherry protein. *The FEBS journal*.

Latreille E, et al. (2025) Phenotypic screening in influenza-infected zebrafish identifies Nrf2-mediated compound protective against ischemia-reperfusion injury. *iScience*, 28(8), 113065.

Simeonova L, et al. (2025) Neutrophils shape the therapeutic efficacy of sirtuin 1 activity modulators in murine influenza virus infection. *Biochimica et biophysica acta. Molecular basis of disease*, 1871(7), 167915.

Wagoner ZW, et al. (2025) Systems immunology analysis of human immune organoids identifies host-specific correlates of protection to different influenza vaccines. *Cell stem*

cell, 32(4), 529.

Peng R, et al. (2025) Molecular basis of influenza ribonucleoprotein complex assembly and processive RNA synthesis. *Science (New York, N.Y.)*, 388(6748), eadq7597.

Alkie TN, et al. (2025) Dairy cow- and avian-origin clade 2.3.4.4b H5N1 induce severe mastitis in lactating goats and transmission to suckling goats. *Cell reports*, 44(10), 116346.