

Resource Summary Report

Generated by [NIF](#) on Sep 11, 2026

NRK-49F

RRID:CVCL_2144

Type: Cell Line

Proper Citation

RRID:CVCL_2144

Cell Line Information

URL: https://web.expasy.org/cellosaurus/CVCL_2144

Proper Citation: RRID:CVCL_2144

Description: Cell line NRK-49F is a Spontaneously immortalized cell line with a species of origin *Rattus norvegicus* (Rat)

Defining Citation: [PMID:304450](#), [PMID:6254071](#)

Category: Spontaneously immortalized cell line

Organism: *Rattus norvegicus* (Rat)

Name: NRK-49F

Synonyms: NRK 49F, NRK49F, NRK clone 49F, Normal Rat Kidney-49F

Cross References: BTO:BTO_0002409, CLO:CLO_0008196, CLO:CLO_0008197, CLO:CLO_0051426, CLDB:cl3726, CLDB:cl3727, CLDB:cl3728, CLDB:cl3729, CLDB:cl3730, CLDB:cl3731, ATCC:CRL-1570, BCRC:60084, CCRID:1101RAT-PUMC000413, ChEMBL-Cells:ChEMBL3308395, ChEMBL-Targets:ChEMBL614203, CLS:500427, DSMZ:ACC-172, DSMZCellDive:ACC-172, ECACC:86101301, IZSLER:BS CL 71, JCRB:IFO50481, JCRB:JCRB9067, Lonza:1414, PubChem_Cell_line:CVCL_2144, RCB:RCB0112, Wikidata:Q54931028

ID: CVCL_2144

Hierarchy: cvcl_3758

Record Creation Time: 20220427T221347+0000

Record Last Update: 20260905T181932+0000

Ratings and Alerts

No rating or validation information has been found for NRK-49F.

No alerts have been found for NRK-49F.

Data and Source Information

Source: [Cellosaurus](#)

Usage and Citation Metrics

We found 177 mentions in open access literature.

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

Chen J, et al. (2026) Subchronic co-exposure to dibutyl phthalate and benzo(a)pyrene exacerbates renal inflammation and fibrosis in rat: Crosstalk between tubular epithelial cells and fibroblasts. *Chemico-biological interactions*, 424, 111887.

Hu X, et al. (2026) Neutrophil extracellular traps drive tubulointerstitial fibrosis via the coiled-coil domain-containing protein 25 (CCDC25)-Yes-associated protein 1 (YAP1) axis-mediated autophagy regulation. *British journal of pharmacology*, 183(17), 5190.

Wu CL, et al. (2025) Depletion of tropomyosin 1.6 alleviates TGF- β 1-induced fibroblast activation by promoting the β -SMA-MMP9 matrix-degrading structure. *iScience*, 28(9), 113317.

Schulz MC, et al. (2023) Acidosis Activates the Nrf2 Pathway in Renal Proximal Tubule-Derived Cells through a Crosstalk with Renal Fibroblasts. *Antioxidants (Basel, Switzerland)*, 12(2).

Chen DQ, et al. (2023) Poricoic acid A suppresses renal fibroblast activation and interstitial fibrosis in UUO rats via upregulating Sirt3 and promoting β -catenin K49 deacetylation. *Acta pharmacologica Sinica*, 44(5), 1038.

Park JS, et al. (2023) 3-Carboxy-4-methyl-5-propyl-2-furanpropanoic acid (CMPF) induces cell death through ferroptosis and acts as a trigger of apoptosis in kidney cells. *Cell death & disease*, 14(2), 78.

Li S, et al. (2023) Tubular cell senescence promotes maladaptive kidney repair and chronic kidney disease after cisplatin nephrotoxicity. *JCI insight*, 8(8).

Suzuki S, et al. (2023) CBGA ameliorates inflammation and fibrosis in nephropathy. *Scientific reports*, 13(1), 6341.

Zhang Y, et al. (2023) HDAC9-mediated epithelial cell cycle arrest in G2/M contributes to kidney fibrosis in male mice. *Nature communications*, 14(1), 3007.

Lin P, et al. (2023) Salvianolic acid B attenuates tubulointerstitial fibrosis by inhibiting EZH2 to regulate the PTEN/Akt pathway. *Pharmaceutical biology*, 61(1), 23.

Son M, et al. (2023) PPAR Pan Agonist MHY2013 Alleviates Renal Fibrosis in a Mouse Model by Reducing Fibroblast Activation and Epithelial Inflammation. *International journal of molecular sciences*, 24(5).

Wen Y, et al. (2023) Gastrodin attenuates renal injury and collagen deposition via suppression of the TGF- β 1/Smad2/3 signaling pathway based on network pharmacology analysis. *Frontiers in pharmacology*, 14, 1082281.

Yang Y, et al. (2023) DNA-dependent protein kinase catalytic subunit (DNA-PKcs) drives chronic kidney disease progression in male mice. *Nature communications*, 14(1), 1334.

Cestero JJ, et al. (2023) Affinity of cefotiam for the alternative penicillin binding protein PBP3SAL used by Salmonella inside host eukaryotic cells. *The Journal of antimicrobial chemotherapy*, 78(2), 512.

Minatoguchi S, et al. (2022) A novel renal perivascular mesenchymal cell subset gives rise to fibroblasts distinct from classic myofibroblasts. *Scientific reports*, 12(1), 5389.

Wang Y, et al. (2022) A novel role of BK potassium channel activity in preventing the development of kidney fibrosis. *Kidney international*, 101(5), 945.

Xu S, et al. (2022) Leukemia inhibitory factor is a therapeutic target for renal interstitial fibrosis. *EBioMedicine*, 86, 104312.

Wang D, et al. (2022) Senescent renal tubular epithelial cells activate fibroblasts by secreting Shh to promote the progression of diabetic kidney disease. *Frontiers in medicine*, 9, 1018298.

Dong L, et al. (2022) Histone lysine-specific demethylase 1 induced renal fibrosis via decreasing sirtuin 3 expression and activating TGF- β 1/Smad3 pathway in diabetic nephropathy. *Diabetology & metabolic syndrome*, 14(1), 2.

Schulz MC, et al. (2022) Epithelial-Fibroblast Crosstalk Protects against Acidosis-Induced Inflammatory and Fibrotic Alterations. *Biomedicines*, 10(3).