Resource Summary Report

Generated by RRID on Apr 29, 2025

PrimerBank

RRID:SCR_006898
Type: Tool

Proper Citation

PrimerBank (RRID:SCR_006898)

Resource Information

URL: http://pga.mgh.harvard.edu/primerbank/

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Description: Database of human and mouse primer pairs for gene expression analysis by polymerase chain reaction (PCR) and quantitative PCR (qPCR). A total of 306,800 primers covering most known human and mouse genes can be accessed from the PrimerBank database, together with information on these primers such as T(m), location on the transcript and amplicon size. For each gene, at least one primer pair has been designed and in many cases alternative primer pairs exist. Primers have been designed to work under the same PCR conditions, thus facilitating high-throughput QPCR. All primers in PrimerBank were carefully designed to ensure gene specificity. All experimental validation data for mouse primers are available from PrimerBank. You can submit your primers. They will be added to the database once they are properly QCd.

Abbreviations: PrimerBank

Synonyms: PrimerBank: PCR Primers for Gene Expression Detection and Quantification

Resource Type: database, service resource, data or information resource, storage service resource, data repository

Defining Citation: PMID:22086960, PMID:19906719, PMID:19108745, PMID:14654707

Keywords: electrophoresis, gene expression, quantitative pcr, gel, gene, agarose, algorithm, amplification, human, molecular probe, primer database, mouse, pcr, primer, primer pair, protein, quantification, reaction, secondary structure, polymerase chain reaction, real-time pcr, pcr primer, detection, blast, bio.tools, FASEB list

Funding: NHLBI U01 HL66678

Availability: Public, Acknowledgement requested, The community can contribute to this resource

Resource Name: PrimerBank

Resource ID: SCR_006898

Alternate IDs: nif-0000-21333, OMICS_02323, biotools:primerbank

Alternate URLs: https://bio.tools/primerbank

Record Creation Time: 20220129T080238+0000

Record Last Update: 20250429T055125+0000

Ratings and Alerts

No rating or validation information has been found for PrimerBank.

No alerts have been found for PrimerBank.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 1432 mentions in open access literature.

Listed below are recent publications. The full list is available at RRID.

Hou SM, et al. (2025) NGF-TrkA Axis Enhances PDGF-C-Mediated Angiogenesis in Osteosarcoma via miR-29b-3p Suppression: A Potential Therapeutic Strategy Using Larotrectinib. Life (Basel, Switzerland), 15(1).

Zhou H, et al. (2025) Ionizing radiation-induced disruption of Rela-Bclaf1-spliceosome regulatory axis in primary spermatocytes causing spermatogenesis dysfunction. Cell communication and signaling : CCS, 23(1), 58.

Zhao D, et al. (2025) Identification of TUBB3 as an immunotherapy target in lung cancer by genome wide in vivo CRISPR screening. Neoplasia (New York, N.Y.), 60, 101100.

Yang F, et al. (2025) SIRT1 regulates cigarette smoke extract?induced alveolar macrophage polarization and inflammation by inhibiting the TRAF6/NLRP3 signaling pathway. Molecular

medicine reports, 31(2).

Alfadhel M, et al. (2025) Truncated SPAG9 as a novel candidate gene for a new syndrome: Coarse facial features, albinism, cataract and developmental delay (CACD syndrome). Genetics and molecular biology, 48(1), e20240094.

Mao Y, et al. (2025) Brussels Chicory Enhances Exhaustive Aerobic Exercise Performance and Post-Exercise Recovery, Possibly Through Promotion of Lactate Oxidation: A Pilot Randomized, Single-Blind, Placebo-Controlled, Two-Way Crossover Study. Nutrients, 17(2).

Yonezawa A, et al. (2025) Inhibition of BRD4 attenuated IFN?-induced apoptosis in colorectal cancer organoids. BMC cancer, 25(1), 136.

Zhu S, et al. (2025) Lnc-EST885 promotes hepatocellular carcinoma metastasis through PI3K / AKT pathway by interaction with TRAF4. Translational oncology, 52, 102254.

Banda O, et al. (2025) Restoring hematopoietic stem and progenitor cell function in Fancc -/- mice by in situ delivery of RNA lipid nanoparticles. Molecular therapy. Nucleic acids, 36(1), 102423.

Ruan J, et al. (2025) Apaf-1 is an evolutionarily conserved DNA sensor that switches the cell fate between apoptosis and inflammation. Cell discovery, 11(1), 4.

Song XQ, et al. (2025) Copy number amplification of FLAD1 promotes the progression of triple-negative breast cancer through lipid metabolism. Nature communications, 16(1), 1241.

Xu X, et al. (2024) PTEN Lipid Phosphatase Activity Suppresses Melanoma Formation by Opposing an AKT/mTOR/FRA1 Signaling Axis. Cancer research, 84(3), 388.

Williams BD, et al. (2024) Protective interplay: Mycobacterium tuberculosis diminishes SARS-CoV-2 severity through innate immune priming. Frontiers in immunology, 15, 1424374.

Wang X, et al. (2024) Ameliorative effect and mechanism of ursodeoxycholic acid on hydrogen peroxide-induced hepatocyte injury. Scientific reports, 14(1), 4446.

Achiro JM, et al. (2024) Aging differentially alters the transcriptome and landscape of chromatin accessibility in the male and female mouse hippocampus. Frontiers in molecular neuroscience, 17, 1334862.

Nair PR, et al. (2024) MLL1 regulates cytokine-driven cell migration and metastasis. Science advances, 10(11), eadk0785.

Durumutla HB, et al. (2024) Glucocorticoid chronopharmacology promotes glucose metabolism in heart through a cardiomyocyte-autonomous transactivation program. JCI insight, 9(22).

Huang G, et al. (2024) SNPs Give LACTB Oncogene-Like Functions and Prompt Tumor Progression via Dual-Regulating p53. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 11(43), e2405907.

Wang M, et al. (2024) Cell-Cycle-Related and Expression Elevated Protein in Tumor Upregulates the Antioxidant Genes via Activation of NF-?B/Nrf2 in Acute Liver Injury. Toxics, 12(12).

Wang C, et al. (2024) AQP3 mediates autophagy through SIRT1/p62 signal to alleviate intestinal epithelial cell damage caused by sepsis. International journal of colorectal disease, 39(1), 205.