

Resource Summary Report

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

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: 20260731T042732+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 1577 mentions in open access literature.

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

Wang GS, et al. (2026) WISP-3 facilitates CCL4-dependent monocyte migration and M1 polarization in rheumatoid arthritis by inhibiting miR-6894-5p. International journal of medical sciences, 23(1), 301.

Dipali SS, et al. (2026) Self-Organizing Ovarian Somatic Organoids Preserve Cellular Heterogeneity and Reveal Cellular Contributions to Ovarian Aging. Aging cell, 25(1), e70333.

Xu X, et al. (2025) FRA1 drives melanoma metastasis through an actionable transcriptional network. Oncogene, 44(50), 4895.

Xu X, et al. (2025) FRA1 drives melanoma metastasis through an actionable transcriptional network. bioRxiv : the preprint server for biology.

Alió JL, et al. (2025) Human Omental Mesothelial Cells Exhibit a Corneal Endothelial-Like Cell Phenotype for Tissue Engineering of a Corneal Endothelium Biomimetic. Investigative ophthalmology & visual science, 66(11), 7.

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).

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.

Yamamoto A, et al. (2025) A novel mouse model of upper tract urothelial carcinoma highlights the impact of dietary intervention on gut microbiota and carcinogenesis prevention despite carcinogen exposure. *International journal of cancer*, 156(7), 1439.

Walter E, et al. (2025) Atg5 in microglia regulates sex-specific effects on postnatal neurogenesis in Alzheimer's disease. *npj aging*, 11(1), 18.

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.

Zheng Y, et al. (2025) Epithelial-Mesenchymal Transition States and Metabolic Reprogramming Related Signatures Predict Prognosis and Therapeutic Responses in HER2-Positive Breast Cancer. *Journal of clinical laboratory analysis*, 39(22), e70119.

Peng L, et al. (2025) Oral Multi-Enzymatic Manganese-Carbon Dots Alleviate Sepsis-Associated Lung Injury via the Gut-Lung Axis. *ACS nano*, 19(43), 37758.

Qin K, et al. (2025) Novel anti-LAG-3 antibody LBL-007 with anti-PD-1 blockade enhances antitumor immunity by promoting T cell-induced apoptosis. *Scientific reports*, 15(1), 37515.

Ren Y, et al. (2025) A continuous totipotent-like cell-based embryo model recapitulates mouse embryogenesis from zygotic genome activation to gastrulation. *Nature cell biology*, 27(11), 1993.

Luyckx L, et al. (2025) Prenatally androgenized PCOS mice have ovary-independent uterine dysfunction and placental inflammation aggravated by high-fat diet. *Science advances*, 11(19), eadu3699.

Diegel CR, et al. (2025) The class A repeats of LRP5 are required for normal development of bone, retinal vasculature and mammary gland in vivo. *Disease models & mechanisms*, 18(11).

Krause K, et al. (2025) *Streptococcus pyogenes* EVs induce the alternative inflammasome via caspase-4/-5 in human monocytes. *EMBO reports*, 26(19), 4847.

Rechl ML, et al. (2025) Long-Term Exposure to Sucrose during the Differentiation Process Increases Permeability Independently of TAS1R3 in In Vitro Models of the Intestinal Barrier Function. *Journal of agricultural and food chemistry*, 73(30), 18763.

Luo Y, et al. (2025) The key regulation of LncRNA MALAT during reprogramming of primary mouse hepatocytes into insulin producing cells. *Scientific reports*, 15(1), 24614.

Cunningham R, et al. (2025) Pipeline to evaluate YAP-TEAD inhibitors indicates TEAD inhibition represses NF2-mutant mesothelioma. *Life science alliance*, 8(10).