

Resource Summary Report

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MitoCarta

RRID:SCR_018165

Type: Tool

Proper Citation

MitoCarta (RRID:SCR_018165)

Resource Information

URL: <http://www.broadinstitute.org/pubs/MitoCarta/>

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Description: Collection of genes encoding proteins with strong support of mitochondrial localization. Inventory of genes encoding mitochondrial-localized proteins and their expression across 14 mouse tissues. Database is based on human and mouse RefSeq proteins that are mapped to NCBI Gene loci. MitoCarta 2.0 inventory provides molecular framework for system-level analysis of mammalian mitochondria.

Synonyms: MitoCarta2.0

Resource Type: data or information resource, database

Defining Citation: [PMID:26450961](#), [PMID:18614015](#)

Keywords: Gene, protein, mitochondrial protein, protein expression, data, human, mouse, RefSeq protein, analysis, mammalian mitochondria, FASEB list

Funding: Australian NHMRC ;
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Charles E. Culpeper Scholarship in Medical Science ;
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NIDDK DK43351;
NIDDK DK57521;
NIGMS GM0077465

Availability: Free, Freely available

Resource Name: MitoCarta

Resource ID: SCR_018165

Record Creation Time: 20220129T080339+0000

Ratings and Alerts

No rating or validation information has been found for MitoCarta.

No alerts have been found for MitoCarta.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 208 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#) .

Jiang J, et al. (2026) Identification of a Novel Mitochondrial-Related Gene Signature for BMSCs in Osteoporosis Combining Single-Cell and Bulk Transcriptome Data. *Biochemical genetics*, 64(2), 1525.

Zhai MR, et al. (2026) Chronic intermittent hypoxia increases Parkinson's disease susceptibility via PPAR γ -mediated lipid droplet-mitochondrial dysfunction. *Theranostics*, 16(5), 2466.

Zhu X, et al. (2026) Hub genes and diagnostic model associated with mitochondrial function in Alzheimer's disease. *Animal models and experimental medicine*, 9(2), 237.

Amor M, et al. (2026) Deletion of MMP12 improves energy metabolism and brown adipose tissue function in mice prone to cardiometabolic disease. *Journal of lipid research*, 67(1), 100951.

Yue X, et al. (2026) Uncovering mitochondrial dynamics-related genes as potential diagnostic biomarkers for acute myocardial infarction. *Frontiers in cardiovascular medicine*, 13, 1755024.

Zhang Q, et al. (2026) A novel mitochondrial-associated risk score reveals a potential link between pancreatic ductal adenocarcinoma and chemotherapy resistance as well as poor response to immunotherapy. *Discover oncology*, 17(1).

Ling L, et al. (2026) PLSCR3 Deficiency Triggers mtDNA-Driven cGAS-STING Activation to Potentiate Antitumor Immunity in Colorectal Cancer. *Human mutation*, 2026, 8545428.

Zhang Y, et al. (2026) MTG2 as a Causal and Druggable Target in Uveal Melanoma via Mitochondrial DNA Dynamics: Evidence From Functional Validation and DMSA Identification. *Investigative ophthalmology & visual science*, 67(2), 30.

He Y, et al. (2026) Mitochondrial-related biomarkers as the diagnostic markers in sepsis induced acute respiratory distress syndrome. *European journal of medical research*, 31(1),

Ying H, et al. (2026) Single-cell RNA sequencing and integrated bioinformatics reveal new mitochondrial biomarkers in sarcopenia. *Frontiers in molecular biosciences*, 13, 1694362.

Chen Y, et al. (2026) Leocarpinolide B alleviates epithelial tubular mitochondrial dysfunction via macrophage exosomal miR-204-5p/TFAM axis in AKI-CKD transition. *Journal of nanobiotechnology*, 24(1).

Radenkovic S, et al. (2026) PGM1 deficiency is linked to sarcomeric and mitochondrial dysfunction in patient-derived iPSC-cardiomyocytes. *Journal of translational medicine*, 24(1).

Borrero-Landazabal MA, et al. (2026) A dynamic gateway: Uncovering the expanded human TOM complex interactome and its regulatory complexity. *Science advances*, 12(18), eaeb2995.

Fernandez EE, et al. (2026) Liver Mitochondrial Transcriptomic Responses to Dietary Crude Protein and Phosphorus Deficiencies and Feed Restriction in Wethers. *Genes*, 17(6).

Jessen S, et al. (2026) Fibre Type-Specific Proteomics Reveals Shared and Distinct Skeletal Muscle Adaptations to Resistance Training and Beta2-Adrenergic Agonist. *Journal of cachexia, sarcopenia and muscle*, 17(1), e70175.

Wu S, et al. (2026) Multi-omics analysis and experiments validate the tumor-suppressive role of mitochondrial lipid metabolism gene ACSM5 in lung adenocarcinoma and its impact on the immune microenvironment. *Human genomics*, 20(1).

Sterben SP, et al. (2026) Microglia Mitochondria Support Neuronal Maturation via Metabolic and Transcriptional Reprogramming in Human 3D In Vitro Brain Model. *Advanced science (Weinheim, Baden-Wurttemberg, Germany)*, 13(25), e08815.

Zhan L, et al. (2026) HIF-1 α suppresses SNPH expression to facilitate liver metastasis of colorectal cancer through regulating mitochondrial dynamics and filopodia formation. *Cell death & disease*, 17(1).

Sill S, et al. (2026) A novel extracellular flux assay workflow uncovers impaired sciatic nerve mitochondrial respiration in diabetic db/db mice. *Cell communication and signaling : CCS*, 24(1), 58.

Zhou T, et al. (2026) Energy metabolism alteration and gene expression reprogramming in a cell model of high fat load non-alcoholic fatty liver disease. *BMC gastroenterology*, 26(1).