Citation

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Target Identification and Validation Publications Guide

Cellular metabolism in target identification

Highlighted below is a list of publications that reference cell metabolism in target identification and validation studies. They are listed by research area, including immunology, cancer, neurobiology, and acquired metabolic diseases for your easy navigation depending on your interest.

Uncover your peers' work to see how Agilent cell analysis techniques are being used to advance target identification insights across the industry.

TI/TV by research area

Immunology

Bai, J., et al. **DsbA-L prevents obesity-induced inflammation and insulin resistance by suppressing the mtDNA release-activated cGAS-cGAMP-STING pathway.** *Proc Natl Acad Sci U S A. 2017. 114 (46): 12196-12201.*

Franchi, L., et al. **Inhibiting Oxidative Phosphorylation In Vivo Restrains Th17 Effector Responses and Ameliorates Murine Colitis.** *J Immunol. 2017. 198 (7): 2735-2746.*

Ho, G. T., et al. **MDR1 deficiency impairs mitochondrial homeostasis and promotes intestinal inflammation.** *Mucosal Immunol. 2018. 11 (1): 120-130.*

Cancer

Boudreau, A., et al. **Metabolic plasticity underpins innate and acquired resistance to LDHA inhibition.** *Nat Chem Biol. 2016.*

Daemen, A., et al. **Metabolite profiling stratifies pancreatic ductal adenocarcinomas into subtypes with distinct sensitivities to metabolic inhibitors.** *Proceedings of the National Academy of Sciences of the United States of America. 2015. 112 (32): E4410-7.*

Dermit, M., et al. **Oxidative stress downstream of mTORC1 but not AKT causes a proliferative defect in cancer cells resistant to PI3K inhibition.** *Oncogene. 2016.*

Grassian, A. R., et al. **IDH1 mutations alter citric acid cycle metabolism and increase dependence on oxidative mitochondrial metabolism.** *Cancer research. 2014.*

Jones, J. E., et al. **Inhibition of Acetyl-CoA Carboxylase 1 (ACC1) and 2 (ACC2) Reduces Proliferation and De Novo Lipogenesis of EGFRvIII Human Glioblastoma Cells.** *PLoS One. 2017. 12 (1): e0169566.*

Kovalenko, I., et al. **Identification of KCa3.1 Channel as a Novel Regulator of Oxidative Phosphorylation in a Subset of Pancreatic Carcinoma Cell Lines.** *PLoS One. 2016. 11 (8): e0160658.*

Peck, B., et al. **Inhibition of fatty acid desaturation is detrimental to cancer cell survival in metabolically compromised environments.** *Cancer Metab. 2016. 4 6.*

Pusapati, R. V., et al. **mTORC1-Dependent Metabolic Reprogramming Underlies Escape from Glycolysis Addiction in Cancer Cells.** *Cancer Cell. 2016.*

Raha, D., et al. **The cancer stem cell marker aldehyde dehydrogenase is required to maintain a drug-tolerant tumor cell subpopulation.** *Cancer research. 2014.*

Schockel, L., et al. **Targeting mitochondrial complex I using BAY 87-2243 reduces melanoma tumor growth.** *Cancer Metab. 2015. 3 11.*

Sun, Y., et al. **Metabolic and transcriptional profiling reveals pyruvate dehydrogenase kinase 4 as a mediator of epithelial-mesenchymal transition and drug resistance in tumor cells.** *Cancer & metabolism. 2014. 2 (1): 20.*

Ulanet, D. B., et al. **Mesenchymal phenotype predisposes lung cancer cells to impaired proliferation and redox stress in response to glutaminase inhibition.** *PloS one. 2014. 9 (12): e115144.*

Vashisht Gopal, Y. N., et al. **Inhibition of mTORC1/2 overcomes resistance to MAPK pathway inhibitors mediated by PGC1alpha and Oxidative Phosphorylation in melanoma.** *Cancer research. 2014.*

Neuroscience

Guo, J., et al. **BDNF pro-peptide regulates dendritic spines via caspase-3.** *Cell Death Dis. 2016. 7 e2264.*

Jinn, S., et al. **TMEM175 deficiency impairs lysosomal and mitochondrial function and increases alpha-synuclein aggregation.** *Proc Natl Acad Sci U S A. 2017. 114 (9): 2389-2394.*

Li, L., et al. **Human A53T alpha-Synuclein Causes Reversible Deficits in Mitochondrial Function and Dynamics in Primary Mouse Cortical Neurons.** *PloS one. 2013. 8 (12): e85815.*

Noelker, C., et al. **Glucocerebrosidase deficiency and mitochondrial impairment in experimental Parkinson disease.** *Journal of the neurological sciences. 2015.*

Acquired Metabolic Diseases

Bartesaghi, S., et al. **Thermogenic Activity of UCP1 in Human White Fat-Derived Beige Adipocytes.** *Molecular endocrinology. 2014. me20141295.*

Moisan, A., et al. **White-to-brown metabolic conversion of human adipocytes by JAK inhibition.** *Nature cell biology. 2014.*

Nasrin, N., et al. **SIRT4 regulates fatty acid oxidation and mitochondrial gene expression in liver and muscle cells.** *J Biol Chem. 2010. 285 (42): 31995-2002.*

Schlessinger, K., et al. **Gene expression in WAT from healthy humans and monkeys correlates with FGF21-induced browning of WAT in mice.** *Obesity. 2015. 23 (9): 1818-29.*

Sharma, A., et al. **Brown fat determination and development from muscle precursor cells by novel action of bone morphogenetic protein 6.** *PloS one. 2014. 9 (3): e92608.*

Souza, S. C., et al. **Atrial natriuretic peptide regulates lipid mobilization and oxygen consumption in human adipocytes by activating AMPK.** *Biochem Biophys Res Commun. 2011.*

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