脱氧鸟苷激酶(Dguok)具有通过介导细胞线粒体自噬发挥调控巨噬细胞极化的功能，研究表明Dguok敲低后细胞自噬水平增强，LC-3B点状聚集增加，自噬小体数目显著上升，利用免疫荧光共定位的方法证实在Dguok干扰的细胞中线粒体自噬水平增强，说明Dguok干扰触发线粒体自噬。更加重要的是，Dguok敲低的Raw264.7细胞M1型相关指标几乎被完全抑制。IL-1，IL6，TNF-α，iNOS RNA以及蛋白水平表达均被显著抑制，表面marker CD11c的表达也降低。脱氧鸟苷激酶（DGUOK）的缺乏会导致mtDNA的耗竭和线粒体功能障碍，在此展示了DGUOK基因敲除（Dguok-/-）小鼠的长期生存的分子途径。

Wu Nanchang,Song Honglin,Ren Yaoyao et al. DGUOK-AS1 promotes cell proliferation in cervical cancer via acting as a ceRNA of miR-653-5p.[J] .Cell Biochem Funct, 2020, 38: 870-879.

Bychkov I O,Itkis Y S,Tsygankova P G et al. Mitochondrial DNA maintenance disorders in 102 patients from different parts of Russia: Mutational spectrum and phenotypes.[J] .Mitochondrion, 2021, 57: 205-212.

Guo Jingyi,Duan Lifan,He Xueying et al. A Combined Model of Human iPSC-Derived Liver Organoids and Hepatocytes Reveals Ferroptosis in DGUOK Mutant mtDNA Depletion Syndrome.[J] .Adv Sci (Weinh), 2021, 8: 2004680.

Sang Lei,He Ying-Jie,Kang Jiaxin et al. Mitochondrial Deoxyguanosine Kinase Regulates NAD Biogenesis Independent of Mitochondria Complex I Activity.[J] .Front Oncol, 2020, 10: 570656.

Vanden Avond Mark A,Meng Hui,Beatka Margaret J et al. The nucleotide prodrug CERC-913 improves mtDNA content in primary hepatocytes from DGUOK-deficient rats.[J] .J Inherit Metab Dis, 2021, 44: 492-501.

Hassan Shahzeb,Mahmoud Ali,Mohammed Taha Osman et al. Pediatric liver transplantation from a living donor in mitochondrial disease: Good outcomes in DGUOK deficiency?[J] .Pediatr Transplant, 2020, 24: e13714.