Structural and functional characterization of 6-phosphogluconate dehydrogenase in *Plasmodium falciparum* (3D7) and identification of its potent inhibitors

Alagesan Karthika, Nagarajan Hemavathy, Mathimaran Amala... apandian, Dhamodharan Prabhu, Umashankar Vetrivel, Chun Jung Cher... nthan
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Chitra Jeyaraj Pandian

g Department of Biotechnology, Dr. Umayal Ramanathan College for Women, Karaikudi, Tamil Nadu, India

View further author information

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Abstract

The malarial parasite *Plasmodium falciparum* predominantly causes severe malaria and deaths worldwide. Moreover, resistance developed by *P. falciparum* to frontline drugs in recent years has markedly increased malaria-related deaths in South Asian Countries. Ribulose 5-phosphate and NADPH synthesized by Pentose Phosphate Pathway (PPP) act as a direct precursor for nucleotide synthesis and *P. falciparum* survival during oxidative challenges in the intra-erythrocytic growth phase . In the present study, we have