

Mitochondrial Mechanisms of Photobiomodulation in Context of New Data About Multiple Roles of ATP

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It is generally accepted that the mitochondria are the initial site of light action in cells, and cytochrome c oxidase (the terminal enzyme of the mitochondrial respiratory chain) is the responsible molecule.²⁻⁸ Mixed-valence copper components of cytochrome c oxidase, CuA and CuB, are believed to be the photoacceptors.^{5,9,10} The same photoacceptor molecule for different cellular responses can explain, at least partly, the versatility of low-power laser effects.