# Article information:

Photochemotherapy of Infrared Active BODIPY-Appended Iron(III) Catecholates for in Vivo Tumor Growth Inhibition - PMC
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6644825/>

# Article summary:

1. Iron(III) catecholates of BODIPY-conjugated dipicolylamine ligands were studied for their in vivo activity in dark and infrared light in luciferase-expressing human breast adenocarcinoma (BT474luc) cells.

2. Complex 2 showed photocytotoxicity in BT474luc cells with moderate dark toxicity, apoptotic cell death involving reactive oxygen species, and tumor growth inhibition in mice on exposure to infrared light of 685 nm.

3. The results exemplify complex 2 as a unique iron-based infrared-active photochemotherapeutic agent.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy, providing evidence for its claims through the use of various assays such as MTT and Annexin-V FITC/PI staining assays, 2,7-dichlorofluorescein diacetate assay, imaging studies, and in vivo studies. The article also provides a detailed description of the design and synthesis of the complexes studied, as well as their properties such as photophysical properties and ROS generation ability. Furthermore, the article discusses potential applications of these complexes for photodynamic therapy (PDT).

However, there are some points that could be improved upon. For example, the article does not provide any information on possible risks associated with using these complexes for PDT or any other potential side effects that may arise from their use. Additionally, while the article does discuss potential applications of these complexes for PDT, it does not explore any other potential uses or applications that they may have. Finally, while the article does provide evidence for its claims through various assays and experiments conducted on mice models, it would be beneficial to conduct further experiments on larger animal models to further validate its findings before applying them to humans.

# Topics for further research:

* Photodynamic therapy risks
* Photodynamic therapy side effects
* Alternative applications of photodynamic therapy complexes
* Photodynamic therapy complexes in larger animal models
* Photodynamic therapy complexes in humans
* Photodynamic therapy complexes safety

# Report location:

<https://www.fullpicture.app/item/4ec14daa8405baa77c705a240f4284c3>