

## An efficient synthesis and cytotoxicity evaluation of some 3,5-bis[3-aryl-1-phenyl-1H-pyrazol-4-yl]methylene]-1-methylpiperidin-4-ones

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**ABSTRACT** A series of new 3,5-bis[3-aryl-1-phenyl-1H-pyrazol-4-yl]methylene]-1-methylpiperidin-4-ones (**6a-6e**) has been efficiently synthesized through the Claisen Schmidt reaction with the use of a catalytic amount of sodium hydroxide (30 mol%) in aqueous polyethylene glycol (PEG)-400 as a key step. The reactions culminated with excellent yields in short reaction times, irrespective of the nature of the reactants. The reaction media is environmentally benign as PEG-400 is a stable, non-volatile, non-toxic, low-flammable, and biodegradable one. Cytotoxicity evaluation reflects that the chemical entity **6d**, possessing ortho-chlorophenyl moieties tethered to the pyrazole scaffolds, exhibited the highest activity against SW1990 human pancreatic cancer cells among the molecules tested.

**KEY WORDS** Pyrazole, Heterocycles, Polyethylene glycol, Cancer, C-C Bond formation.

**How to cite this article:** Jayalakshmi, L.N., Ajitha, K., Aarthi, R., and Ramalingan, C. An efficient synthesis and cytotoxicity evaluation of some 3,5-bis[3-aryl-1-phenyl-1H-pyrazol-4-yl]methylene]-1-methylpiperidin-4-ones, *Indian J. Heterocycl. Chem.*, **2025**, *35*, 755–761. <https://doi.org/10.59467/IJHC.2025.35.755>