DEVELOPMENT OF NOVEL MOLNUPIRAVIR ANALOGUES WITH *OLEA EUROPEAE* METABOLITES AS ENHANCED ANTIVIRAL AGENTS

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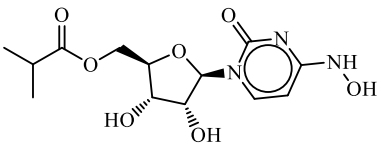
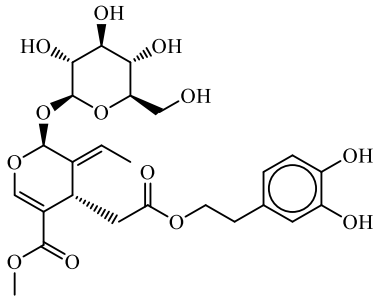
Due to the coronavirus pandemic, there has been an elevated interest in developing novel antiviral agents. So far, several drug candidates, such as molnupiravir (MK-4482 and EIDD-2801), a new oral antiviral agent, are being developed for the treatment of COVID-19[1]. As depicted in literature, several secoiridoid glucosides isolated from *Oleaceae spp.* have shown promising in vitro activity against different strains of pathogenic viruses, namely herpes simplex type 1 virus (HSV-1), influenza type A virus (Flu A), respiratory syncytial virus (RSV) and parainfluenza type 3 virus (Para 3) [2-4]. Prompted by the above, herein we describe the synthesis of a novel hybrid of the above leads, consisting of molnupiravir and oleuropein. The synthesis is performed by a convenient biomimetic and stereo-controlled approach, starting from uridine and oleuropein, an abundant raw material in olive leaves. The overall goal is the development of a concise and scalable procedure for synthesizing various analogs of this new lead.



Molnupiravir



Oleuropein

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