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Synthesis of 2-(2-(1,3-dimethyl-2,4-dioxo-3,4-dihydro-1H-pyrrolo[3,2-d]pyrimidin-5(2H)-yl)acetamido)-3-phenyl-N-(Alka-2/4-yn-1- yl) propanamide

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Abstract : 2-((tert-butoxycarbonyl)amino)-3-phenylpropanoic acid **(1)** reacts with proporgylamide to form tert-butyl (1-oxo-3-phenyl-1-(prop-2-yn-1-ylamino)propan-2-yl)carbamate **(3)**, which on deprotection gives 2-amino-3-phenyl-N-(prop-2-yn-1-yl)propanamide **(4)**. Compound 3 reacts with bromoacetic acid to give 2-(2-bromoacetamido)-3-phenyl-N-(prop-2-yn-1-yl) propanamide **(5)**, which is coupled with 1,3-dimethyl-1H-purine-2,6(3H,7H)-dione to form title compound. All the compounds were confirmed by spectral analysis. The said compound exhibit broad biological activity as antitumor, antifungal, antibacterial and anti-HIV agents.

Keywords : Pyrimidine, amide, carbamate and antifungal.

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