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Design, Synthesis and in-vitro Antitumor Evaluation of Some Novel Substituted Quinazoline Derivatives

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Abstract : A novel series of 2,3,6-trisubstitute quinazolinone were designed, synthesized, and evaluated for their in-vitro antitumor activity. 3 (Benzylideneamino)-6-chloro-2-p-tolylquinazolin-4(3H)-One, 2-[(4-oxo-3-phenethyl-3,4-dihydroquinazolin-2-yl)thio]-N-(3,4;5-trimethoxyphenyl) acetamide and 3-(3-benzyl-6-methyl-4-oxo-3, 4-dihydroquinazolin-2-ylthio)-N-(3,4,5-trimethoxyphenyl) propanamide have shown amazing broad spectrum antitumor activity with mean GI50; 15.8, 3.16, and 7.4 µM respectively compared to known Quinazoline Derivatives antitumor drug 5-FU mean GI50=22.6 µM.

Keywords : quinazoline derivatives, in vitro antitumor, synthesis, 5-FU, NCI
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