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Title: Synthesis of Chromen-4-One-Oxadiazole Substituted Analogs as Potent -Glucuronidase Inhibitors

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Abstract: Chromen-4-one substituted oxadiazole analogs 1-19 have been synthesized, characterized and evaluated for -glucuronidase inhibition. All analogs exhibited a variable degree of -glucuronidase inhibitory activity with IC50 values ranging in between 0.8 +/- 0.1-42.3 +/- 0.8 M when compared with the standard d-saccharic acid 1,4 lactone (IC50 = 48.1 +/- 1.2 M). Structure activity relationship has been established for all compounds. Molecular docking studies were performed to predict the binding interaction of the compounds with the active site of enzyme.

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