General Remarks


2. Whenever required the reactions were carried out in an oven dried glassware under dry nitrogen atmosphere. After decomposition of the reaction with water, the workup involves washing of combined organic layer with water, brine, drying over anhydrous sodium sulfate and evaporation of solvent under reduced pressure on Buchi rotary evaporator below 50 °C.

3. All the reactions were monitored by TLC using 0.25 mm precoated silica gel polygram Sil G/UV 254. The following visualizing reagents were used: spraying with either (i) 2% solution of 2,4-dinitrophenyl hydrazine in methanolic sulfuric acid or (ii) 0.1% KMnO₄ solution in distilled water or (iii) 0.2% ninhydrin solution in ethanol or (iv) 2% methanolic sulfuric acid solution. The TLC plate was then heated till spots appear.

4. Column chromatography was performed with silica gel (100–200 mesh). Flash chromatography was carried out on silica gel (200–400 mesh) with Eyela flash chromatograph EF-10.

5. Melting points are measured in degree Celsius (°C) with a Thomas Hoover Capillary melting point apparatus and are uncorrected.

6. Optical rotations were measured using a Bellingham Stanley-ADP digital polarimeter using sodium light (D line 589.3 nm) at 25 °C.

7. IR spectra were recorded with Perkin-Elmer 1600 FTIR and Shimadzu FTIR spectrometer as a thin film or in nujol mull or using KBr pellets and are expressed in cm⁻¹.

8. ¹H (300 MHz) and ¹³C (75 MHz) NMR spectra were recorded using CDC₁₃ and/or D₂O as a solvent(s) on Varian (mercury) instrument. Chemical shifts were reported in δ unit (ppm) with reference to TMS as an internal standard and J values are given in Hz. The assignments of the signals were confirmed by decoupling, DEPT and ¹H–¹H COSY experiments.

9. Elemental analyses were carried out with Hosli's carbon-hydrogen analyzer.

10. Glycosidase inhibitory activity and Immunomodulatory activity was studied in collaboration with Bio-organic Division, Bhaba atomic research centre, Mumbai.