2.5.6 Preparation of 1-[4-(azepan-1-yl)but-2-yn-1-yl]-2-methyl-2,3-dihydro-1H-indole (AZ-7)

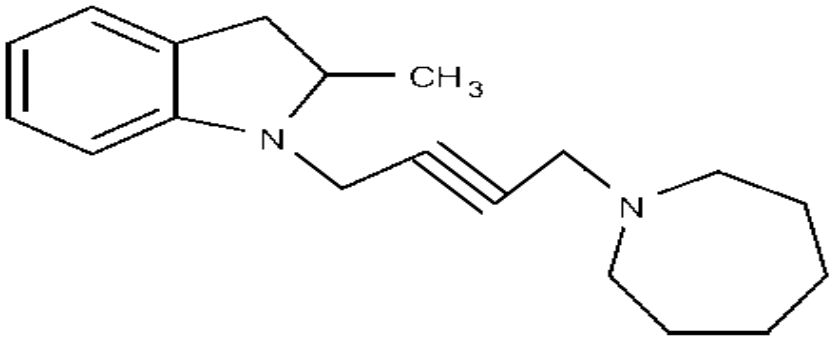

Figure 28: 1-[4-(azepan-1-yl)but-2-yn-1-yl]-2-methyl-2,3-dihydro-1H-indole.

The titled compound was prepared following the general procedure for synthesis of 2-methyl-1-[4-(amino-1-yl)but-2-yn-1-yl]-2,3-dihydro-1H-indole, AZ2-AZ7, yielded 2.3 g 85.1% . **IR (NaCl, Cm^{-1}):** 3048, 2926, 2851 (ArH, stretch), 1607, 1481, 1460 (Ar, C=C, stretch), 1234, 1147 (Ar, C=C, bending), 1088, 749 (ArH, bending). **^{1}H-NMR (DMSO-d_6):** δ 1.22 (d, 3H, N-CH-C$\underline{H}_3$), 1.18, 1.46, 1.48, 1.62, 2.46, 2.89 (m, various protons of cyclicamine), 3.06 (d, 1H, C$\underline{H}_2$-CH-N), 3.50, 3.89 (d, 2H, *J* = 2.4 Hz, CH_2-C) due to long range coupling, 3.66 (d, 1H, C$\underline{H}_2$-CH-N), 3.18 (m. 1H, *J* = 6.15 Hz, N-C$\underline{H}$-CH_3), 3.73, 4.13 (d, 2H, *J* = 2.4 Hz, C-CH_2-N) due to long range coupling, , 6.8-7.28 (m, 4H, ArH).