2.5.5 Preparation of 2-methyl-1-[4-(pyrrolidin-1-yl)but-2-yn-1-yl]-2,3-dihydro-1H-indole (AZ-6)

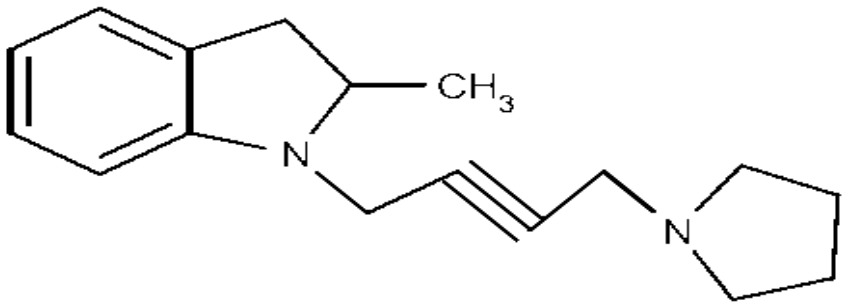

Figure 27: 2-methyl-1-[4-(pyrrolidin-1-yl)but-2-yn-1-yl]-2,3-dihydro-1H-indole.

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 90.4 %. **IR (NaCl, Cm^{-1}):** 2963 (ArH, stretch), 1607, 1460, 1431 (Ar,C=C, stretch), 1234, 1147 (Ar, C=C, bending), 749, 718 (ArH, bending). **^{1}H-NMR (DMSO-d_6):** δ 1.22 (d, 3H, N-CH-C$\underline{H}_3$), 1.89, 1.98, 2.72, 3.15 (m, various protons of cyclicamine), 3.06 (d, 1H, C$\underline{H}_2$-CH-N), 3.49, 3.89 (d, 2H, *J* = 2.4 Hz, CH_2-C) due to long range coupling, 3.80 (m, 1H, *J* = 6.15 Hz, N-C$\underline{H}$-CH_3), 3.73, 4.13 (d, 2H, *J* = 2.4 Hz, CH_2-N) due to long range coupling, , 6.81-7.28 (m, 4H, ArH).