|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **δC (ppm)** | **Total C (Type)** | **δH (ppm)** | **HMBC** | **COSY** |
| 1 | 55.4 | 1 (O-CH3) | 3.90, *d*, *J* = 2.5 Hz (3H) | C-2, C-12, C-13, C-14 |  |
| 2 | 55.8 | 1 (O-CH3) | 3.90, *d*, *J* = 2.5 Hz (3H) | C-1, C-12, C-13, C-14 |  |
| 3 | 92.2 | 1 (=C-H) | 6.50, *d*, *J* = 2 Hz (1H) | C-4, C-5, C-11, C-14, C-15 | H-4 |
| 4 | 97.9 | 1 (=C-H) | 6.39, *d*, *J* = 2.5 Hz (1H) | C-3, C-5, C-12, C-13, C-14 | H-3 |
| 5 | 103.9 | 1 (Cq) | - |  |  |
| 6 | 114.1 | 2 (=C-H) | 7.05, *d*, *J* = 9 Hz (2H) | C-8, C-12, C-13 | H-8 |
| 7 | 123.2 | 1 (Cq) | - |  |  |
| 8 | 129.4 | 2 (=C-H) | 8.18, *t*, *J* = 9 Hz (2H) | C-6, C-10, C-12, C-13 | H-7 |
| 9 | 135.7 | 1 (Cq-OH) | - |  |  |
| 10 | 145.7 | 1 (Cq) | - |  |  |
| 11 | 156.8 | 1 (Cq) | - |  |  |
| 12 | 160.8 | 1 (Cq) | - |  |  |
| 13 | 161.1 | 1 (Cq) | - |  |  |
| 14 | 165.7 | 1 (Cq) | - |  |  |
| 15 | 175.2 | 1 (C=O) | - |  |  |
|  |  |  | 11.74, *s* (OH) | C-4, C-5, C-12, C-13, C-14 |  |

Structure prediction:

noname01.tif

noname02.tif

noname03.tif

noname04.tif

noname05.tif

noname06.tif

cosy.jpg

Molecular formula:

C17H14O6

DBE = 17-7+1 = 11

1. Please find the name of this structure.
2. If the name is available, find the NMR data and compare to your compound.
3. It is a known compound.