

	Number of Hs	PPM	Coupling	Reasoning
A₁ A₂	1 1	1.5-2.5	m	A ₁ and A ₂ are diastereotopic Hs, they are adjacent to 2 more diastereotopic Hs and an additional single H. The A group is SP ³ hybridized and far from electronegative atoms.
B	1	1.5-2.5	m	B is a single H adjacent to 2 sets of diastereotopic Hs. It is SP ³ hybridized far from electronegative atoms
C₁ C₂	1 1	1.9	dd	C ₁ and C ₂ are diastereotopic and adjacent to one other Hydrogen, making them dd. The C group is SP ³ hybridized.
D₁ D₂	3 3	0.9	s	Both D group Hs are not adjacent to any other Hs. They are SP ³ and far from electronegative atoms
E₁ E₂	1 1	1.5-2.5	m	E ₁ and E ₂ are diastereotopic Hs and they are adjacent to another group of diastereotopic Hs. They are SP ³ and far from electronegative atoms.
F₁ F₂	1 1	4.3	d	F ₁ and F ₂ are diastereotopic with no other neighboring Hs. F Hs are SP ³ and near 2 Oxygen groups.
G	3	1.5	d	The three G hydrogens are adjacent to one other hydrogen. The G group is SP ³ and in the vicinity of a N atom.
H	3	3.7	s	There are no other Hs adjacent to the H group. It is SP ³ hybridized and next to an O atom.
I	1	7	s	This H has no adjacent H atoms. It is SP ² hybridized and near a N atom.
J	1	5.8	m	J is a single H adjacent to a diastereotopic group of Hs in addition to another H. It is also adjacent to a N group.
K	19	1.2	-	Long carbon chain with all SP ³ atoms. Hs are close together in PPM
L	1	5.8	m	L is a single H with a pair of diastereotopic Hs adjacent. It is an SP ² H with no surrounding electronegative atoms.
M	1	5.3	quart.	M is adjacent to a methyl group and a N atom. It is SP ³ hybridized.
N₁ N₂	1 1	3.2	dd	The N Hs are diastereotopic with another H adjacent. They are SP ³ hybridized with a neighboring O atom.
O	1	1.5	m	This H is adjacent to 2 diastereotopic Hs and 2 other H atoms. It is SP ³ and is adjacent to an O atom.
P	1	3.4	s-br	This H is attached to an O atom making it a broad singlet.
Q₁ Q₂	1 1	5.2	dd	Q ₁ and Q ₂ are diastereotopic and SP ² hybridized. They are adjacent to one other H and no electronegative atoms.