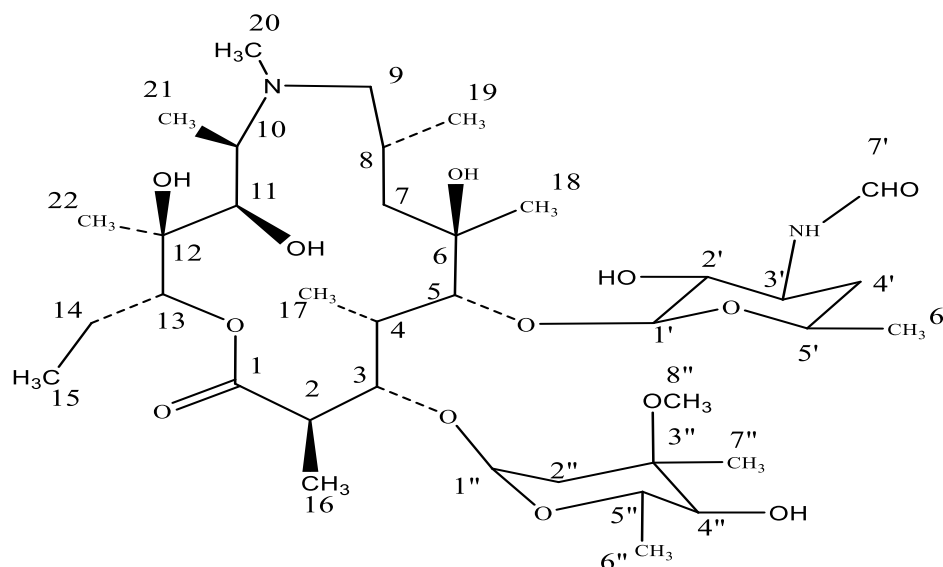




### Structure Elucidation report: Azithromycin Impurity M



### 3'-N,N-Di(desmethyl)-3'-N-formyl Azithromycin

Objective : To Elucidate the structure 3'-N,N-Di(desmethyl)-3'-N-formyl Azithromycin M	
Methodology : 3'-N,N-Di(desmethyl)-3'-N-formyl Azithromycin M was Subject to MS,NMR and spectral Analysis based on the spectral studies 3'-N,N-Di(desmethyl)-3'-N-formyl Azithromycin M was charteredised.	
Batch No	AZE-IMP-M/AZI-M-00176
Molecular Formula:	C <sub>37</sub> H <sub>68</sub> N <sub>2</sub> O <sub>13</sub>
Molecular Weight:	748.9
<b>Test &amp; Results</b>	<b>Conclusions</b>
<b>Mass Analysis:</b> electro spray ionization in +ve mode is 749.3 (M+H) <sup>+</sup>	The protonated molecular ion observed at <i>m/z</i> 749.3 corroborates with the expected molecular weight of 748.95, corresponding to a molecular formula of C <sub>37</sub> H <sub>68</sub> N <sub>2</sub> O <sub>13</sub>
<b><sup>1</sup>H NMR in CDCl<sub>3</sub> (400 MHz, δ ppm)</b> 7.99, 7.86 (H7', 1H, dd) 0.58-5.10 (67H)	Confirms to structure
<b>IR analysis:</b> 3404 peak for N-H stretch 1720 peak for C=O stretch	Confirms to structure