

Study of nusinersen metabolites in cerebrospinal fluid of children with spinal muscular atrophy using ultra-high-performance liquid chromatography coupled with quadrupole-time-of-flight mass spectrometry

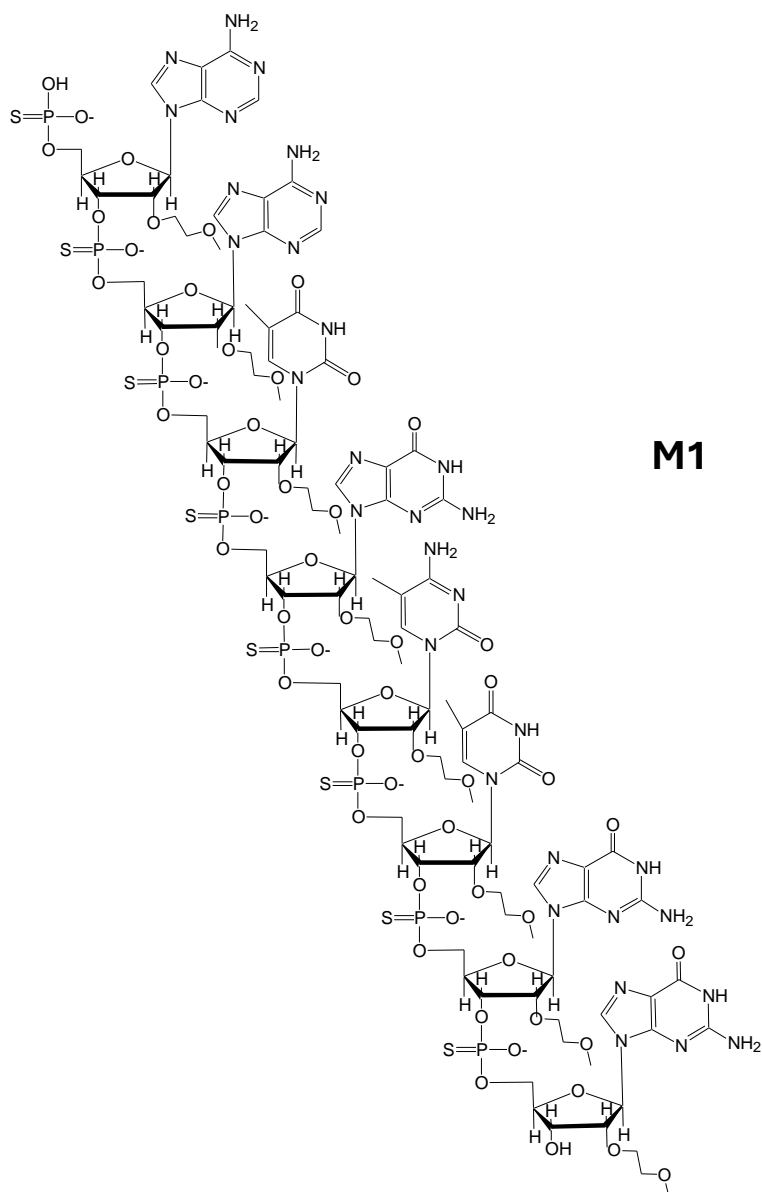
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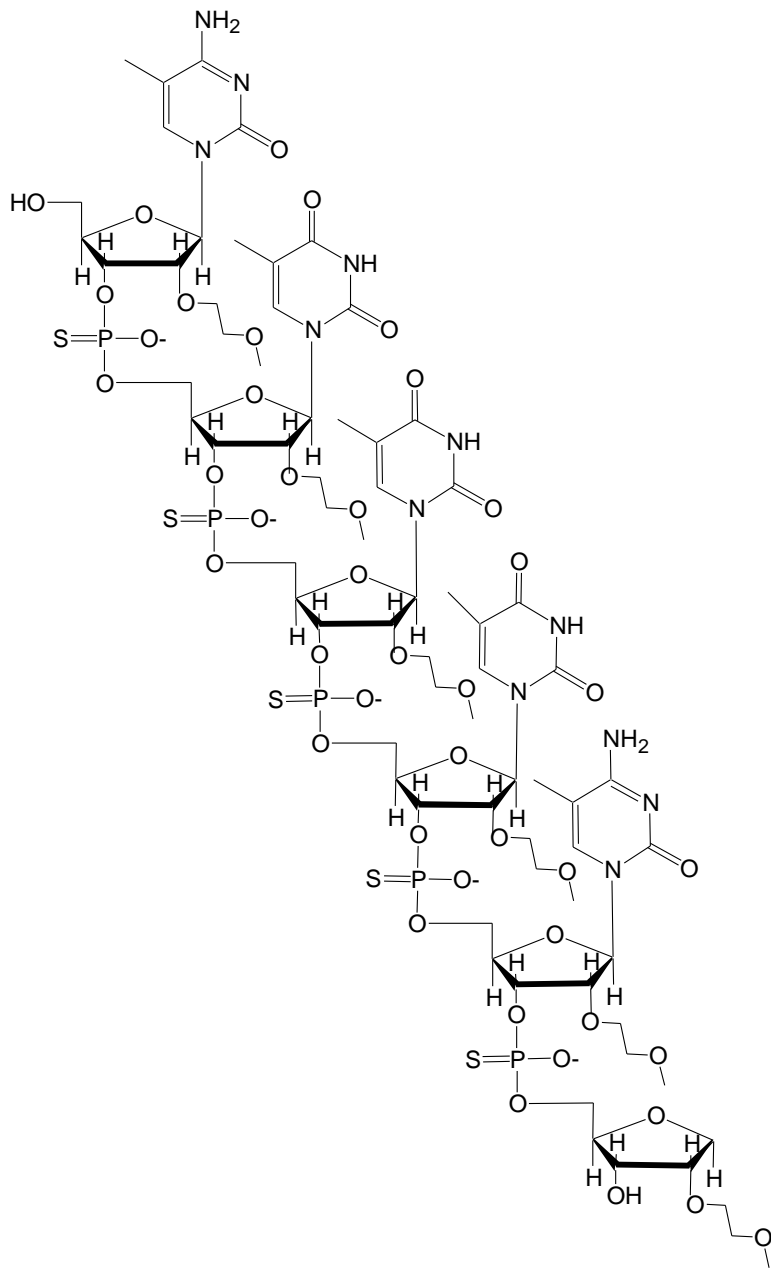
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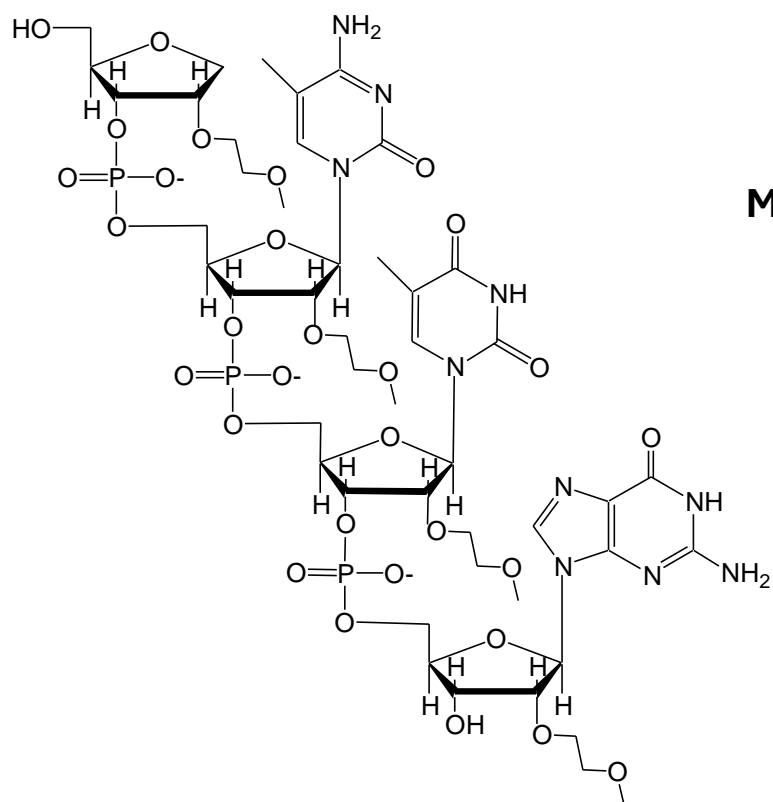
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STRUCTURES OF METABOLITES

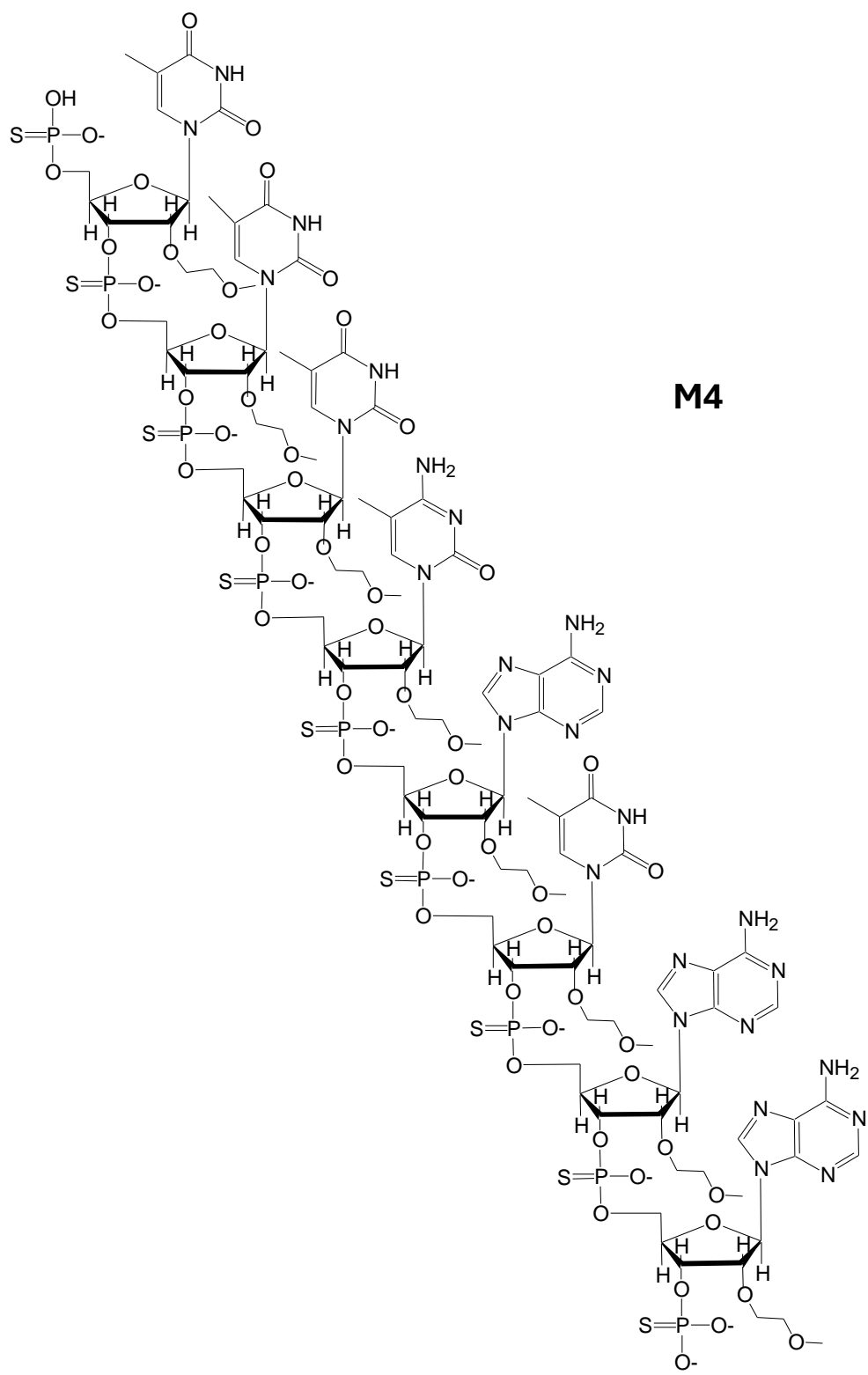




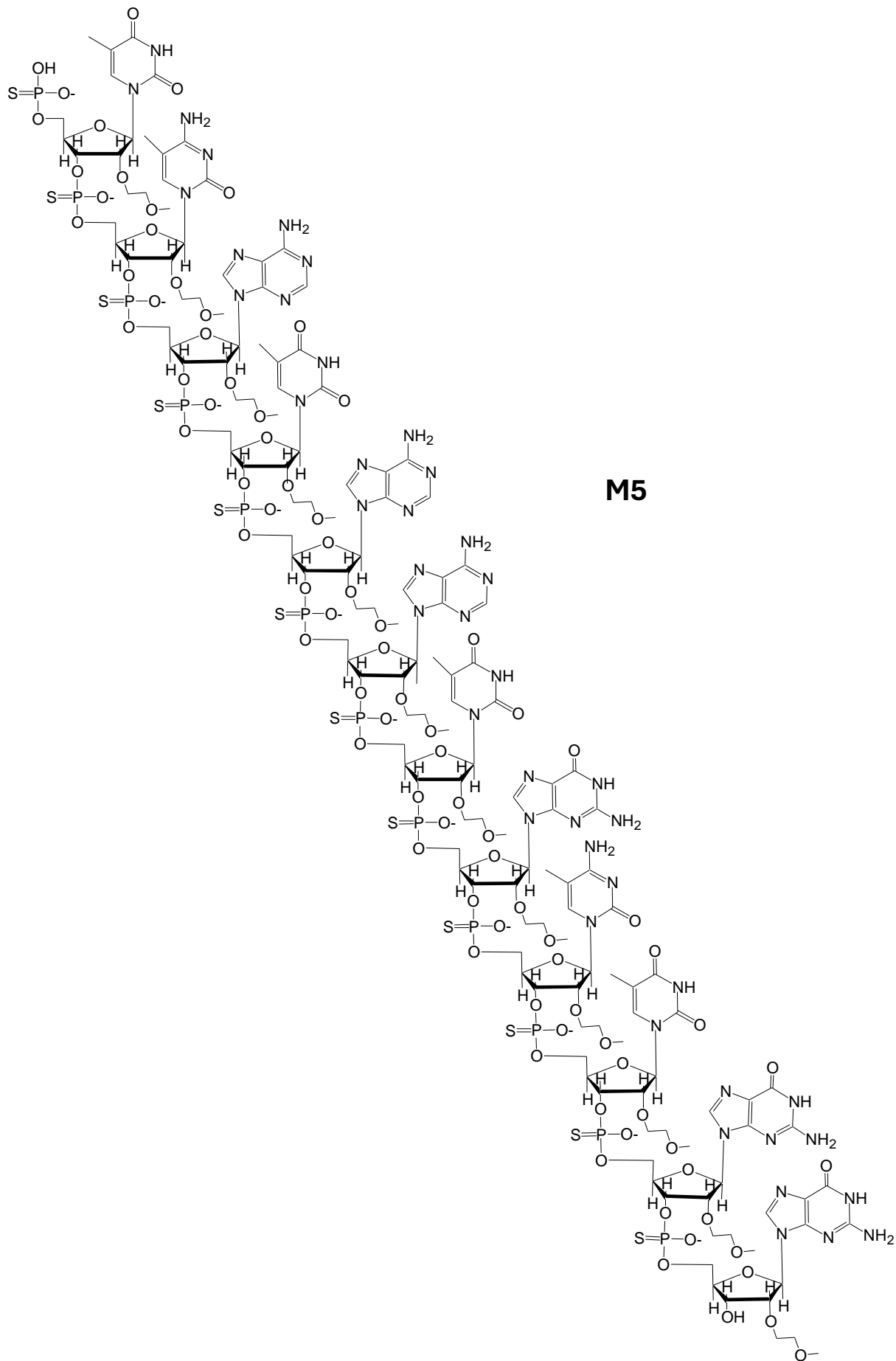
M2

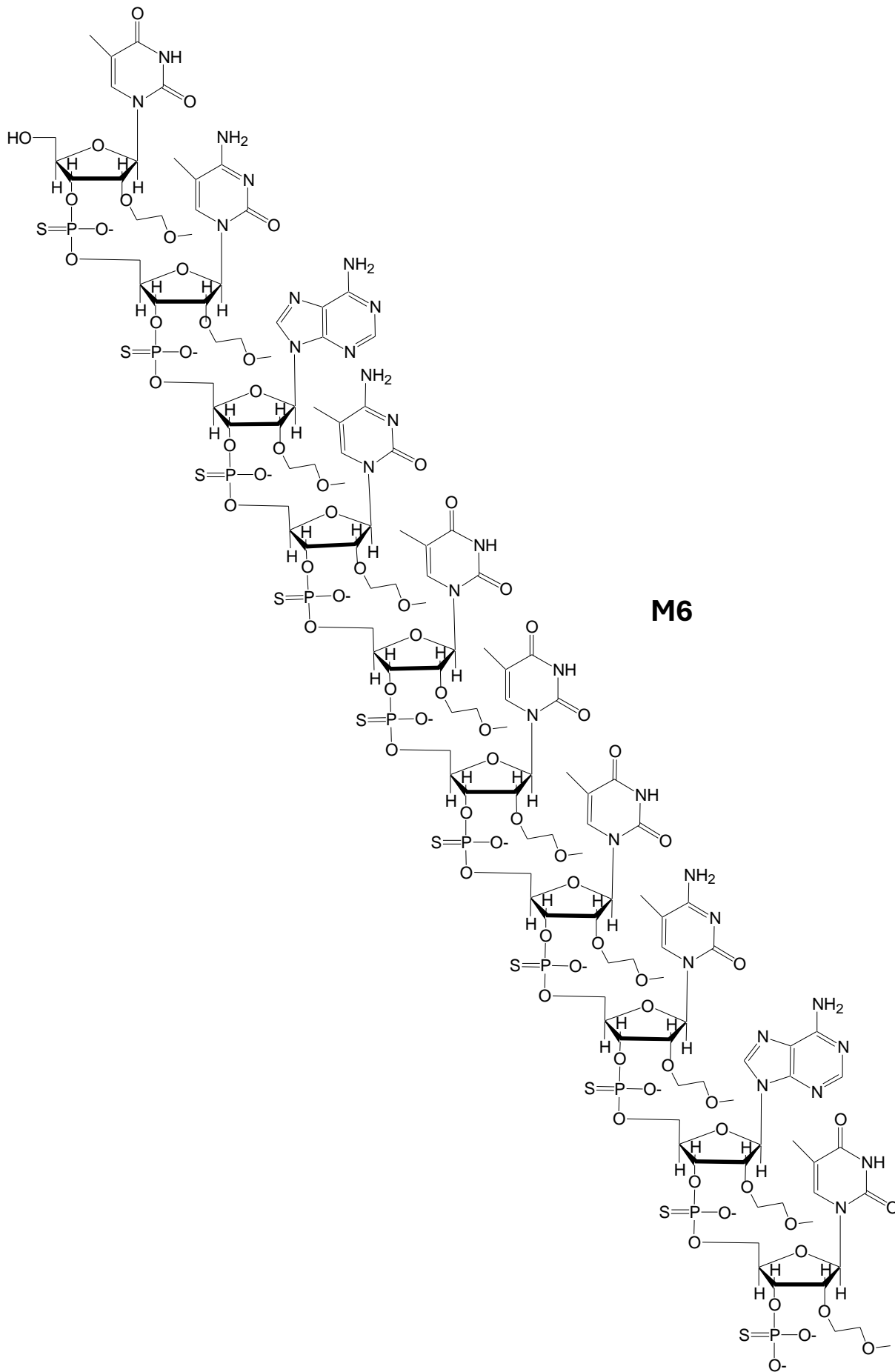


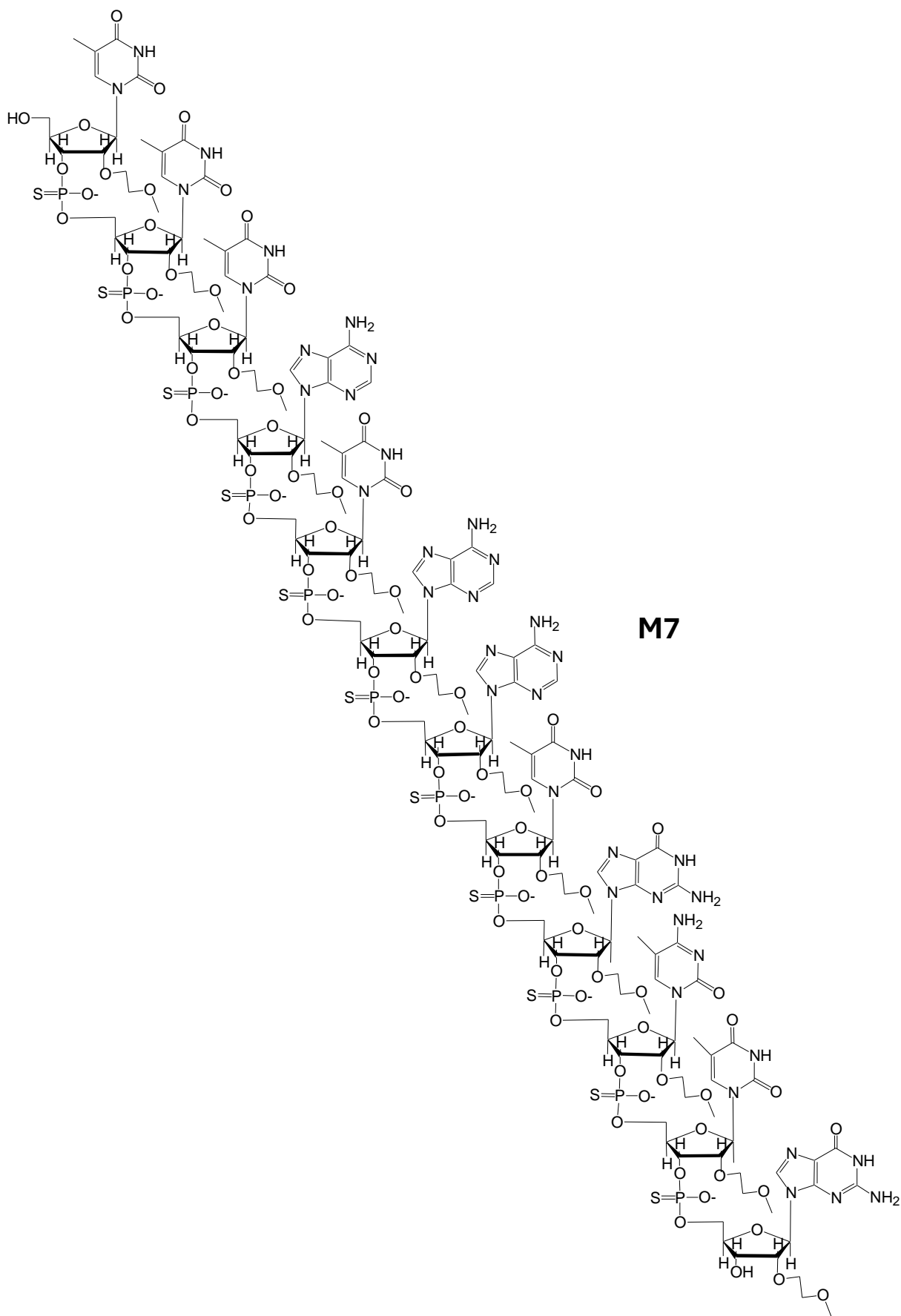
M3

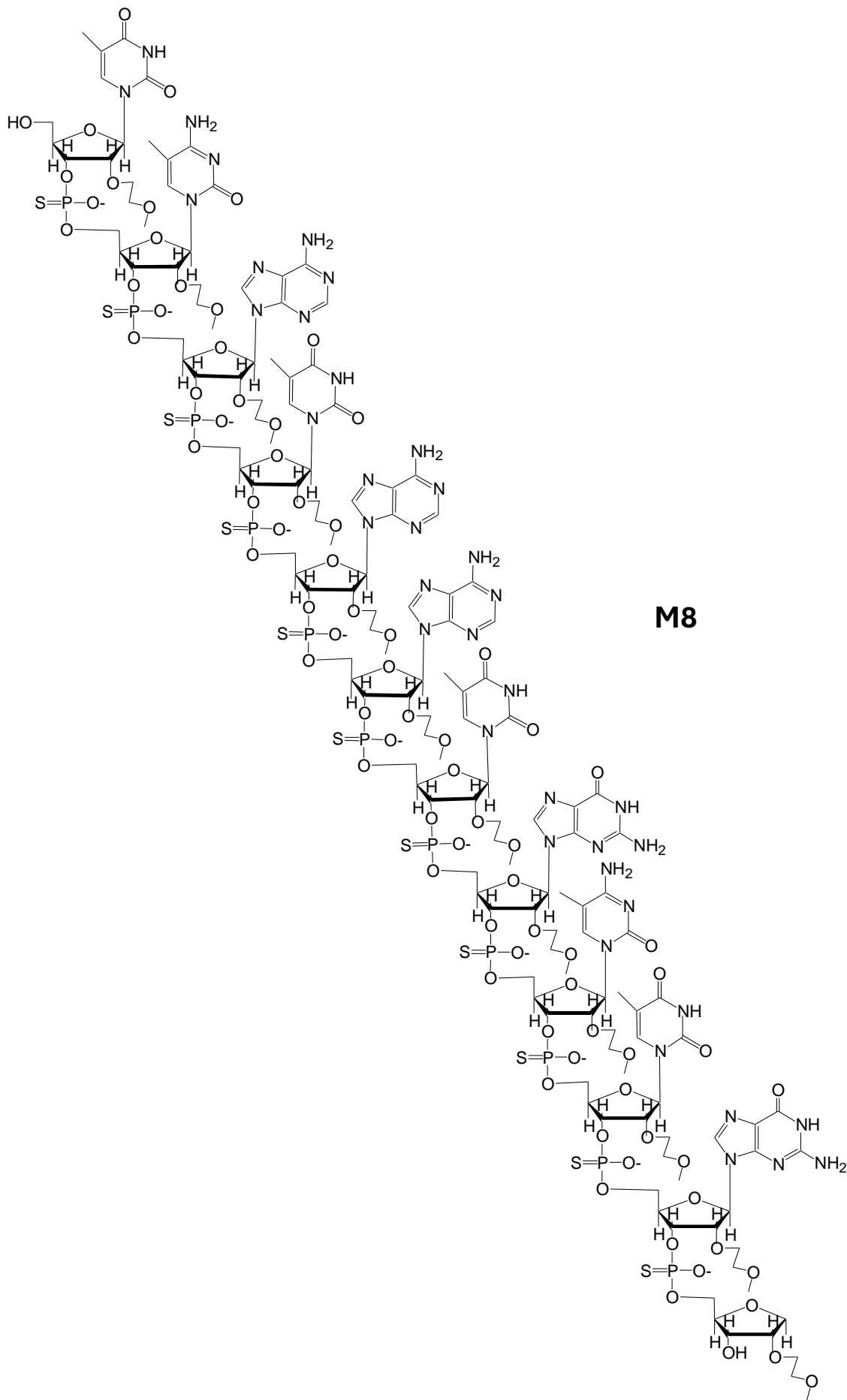


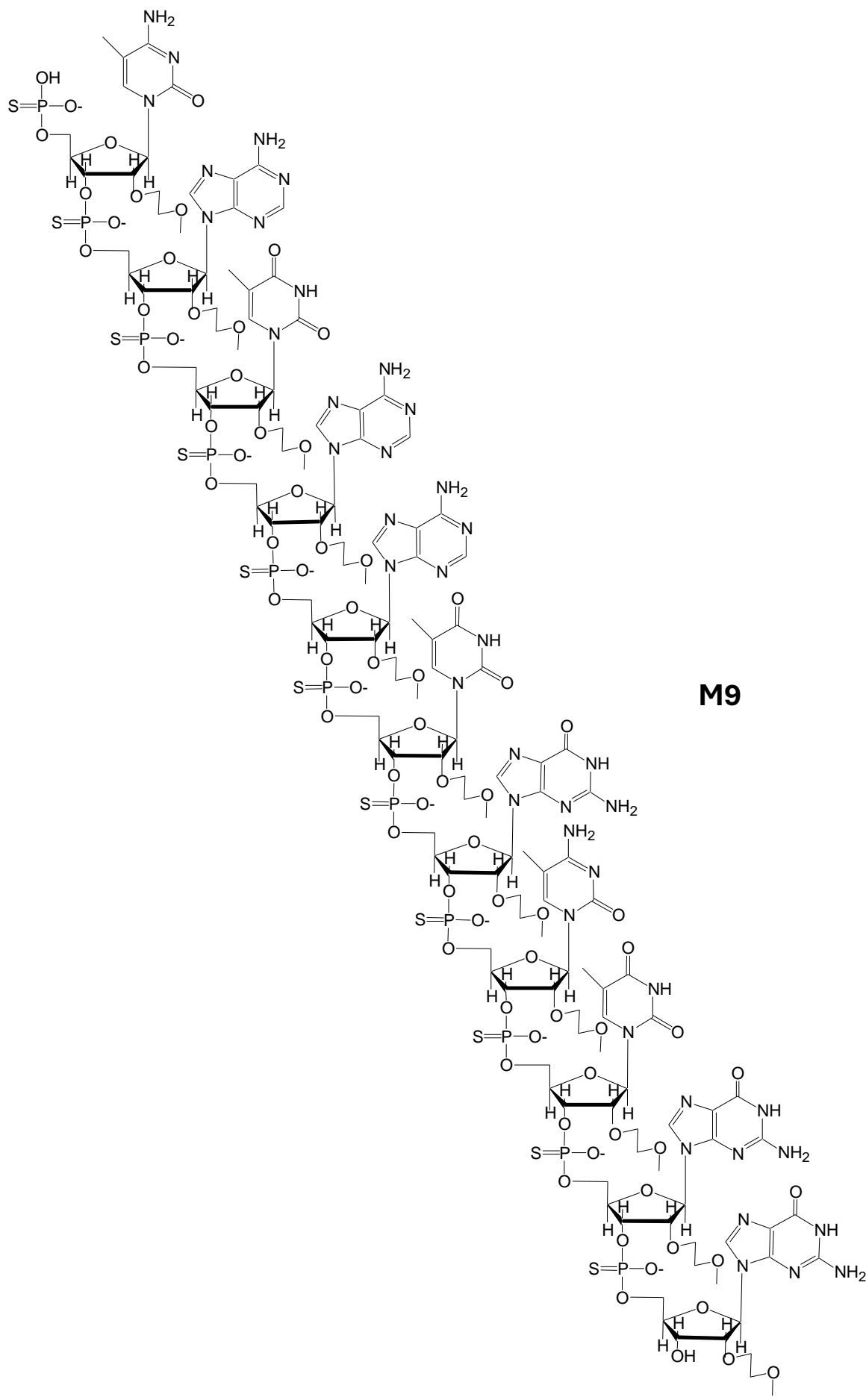
M4



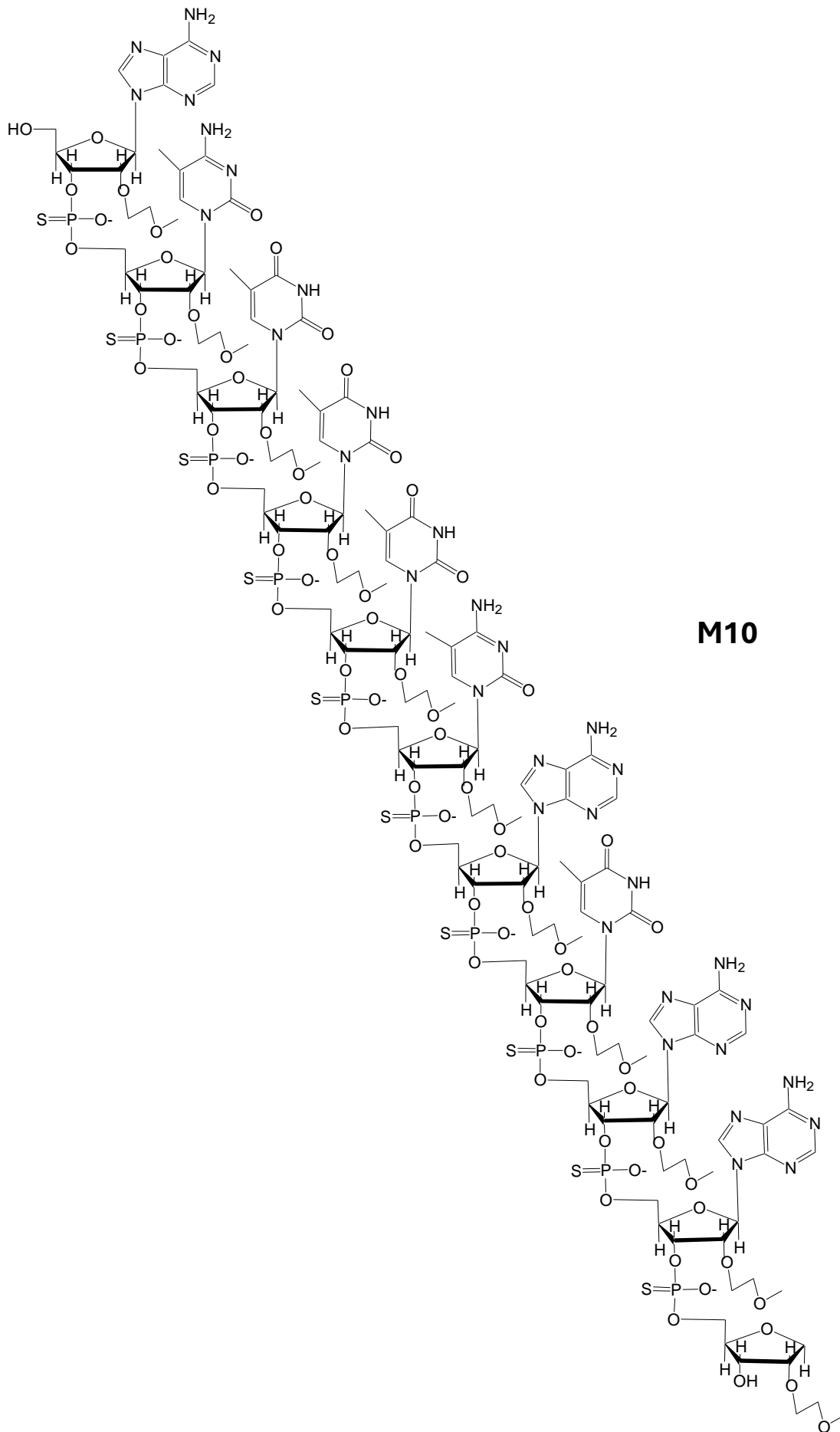


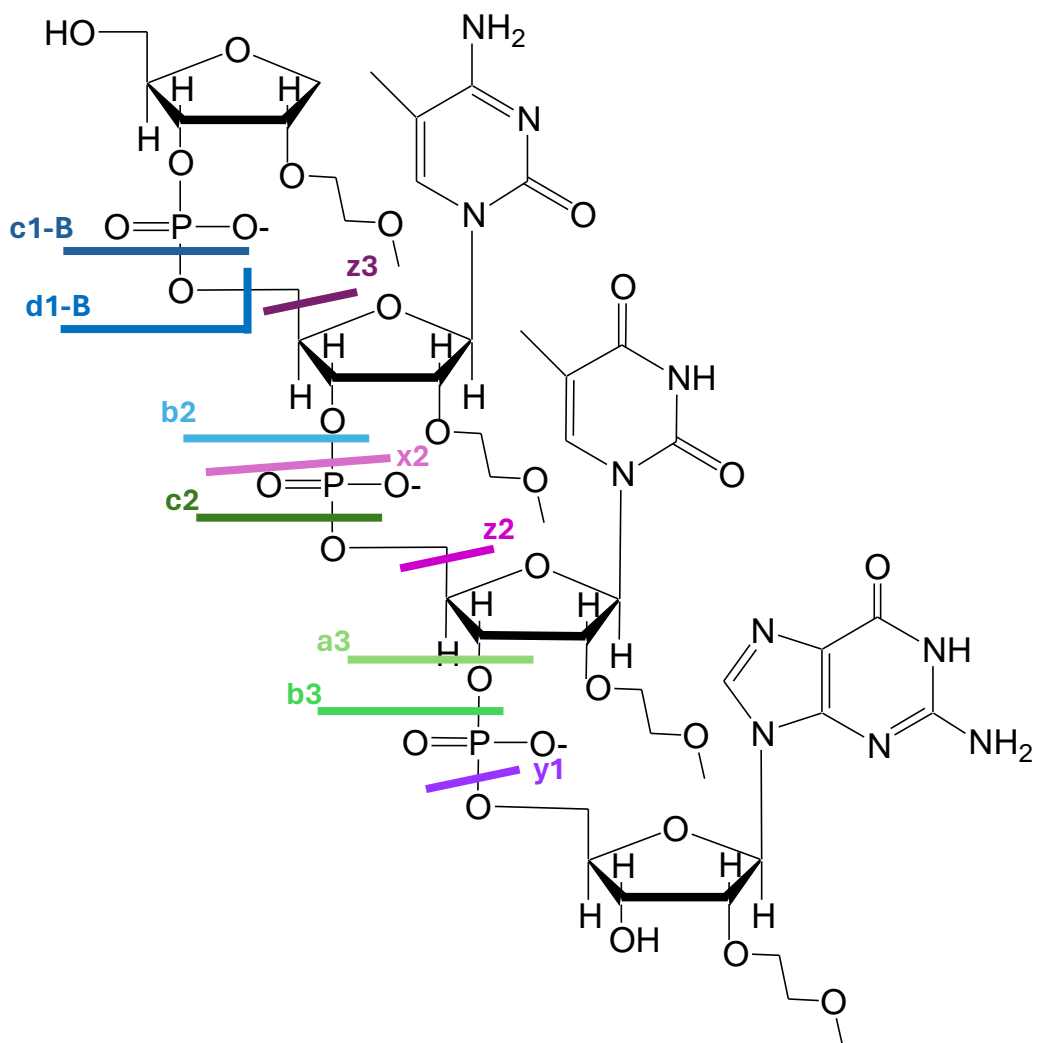






M9





Scheme with indication of the fragmentation sites of the M3 metabolite (fragmentation spectrum shown in Figure 4B).