

Supporting Material

A Novel Insulin Secretagogue Based on a Dinucleoside Polyphosphate Scaffold[#]

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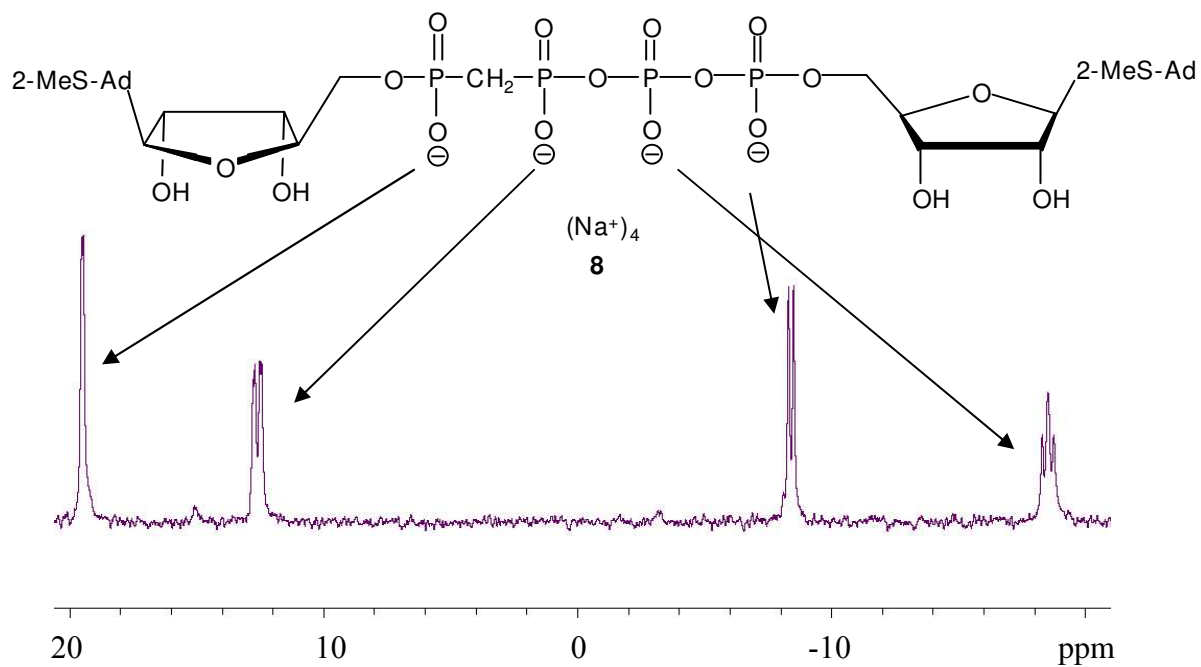
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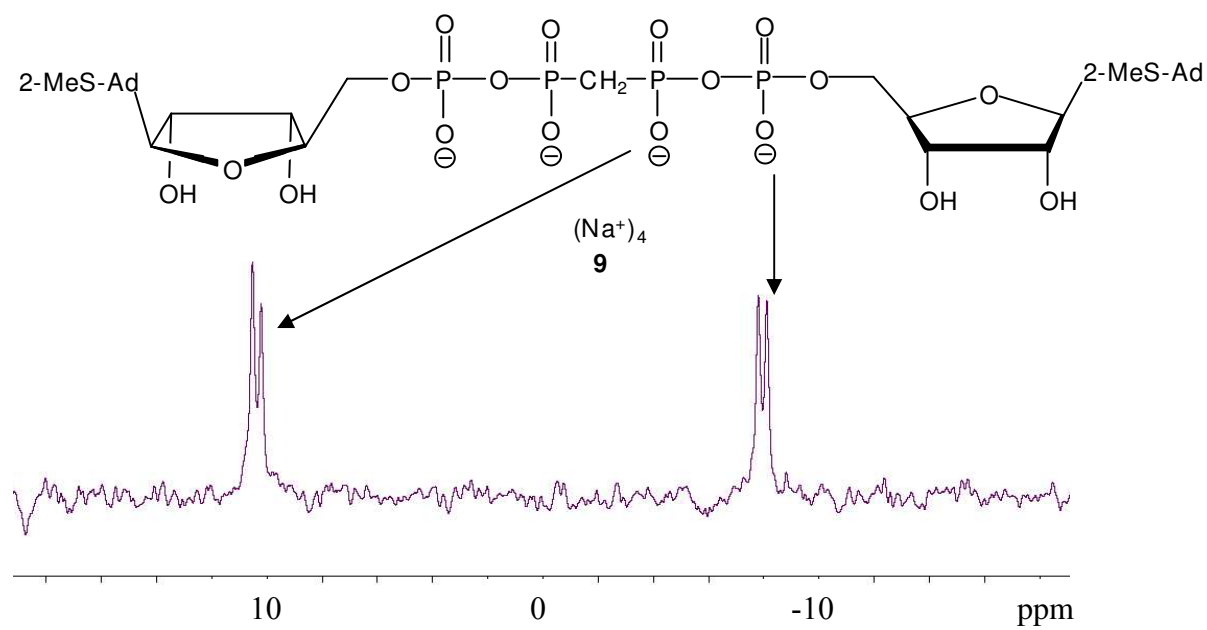
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Fig. 1

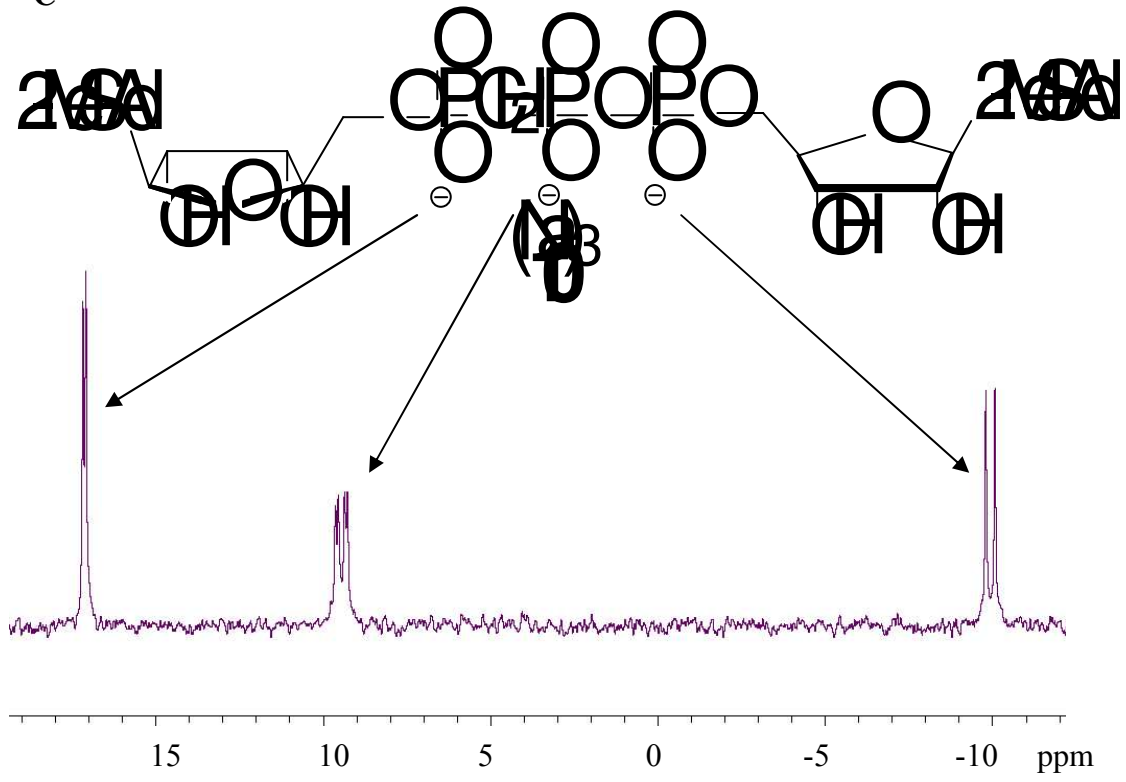
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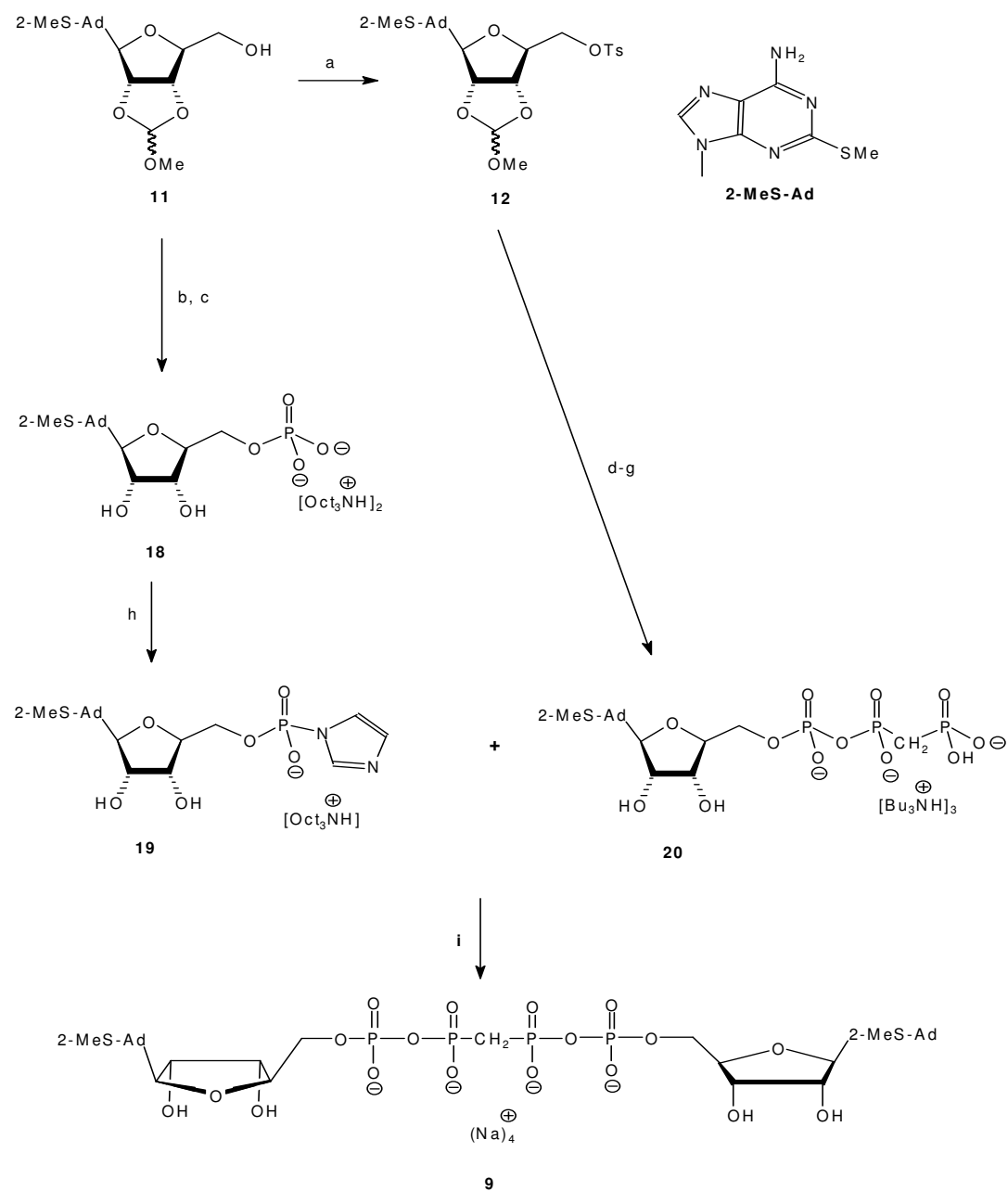
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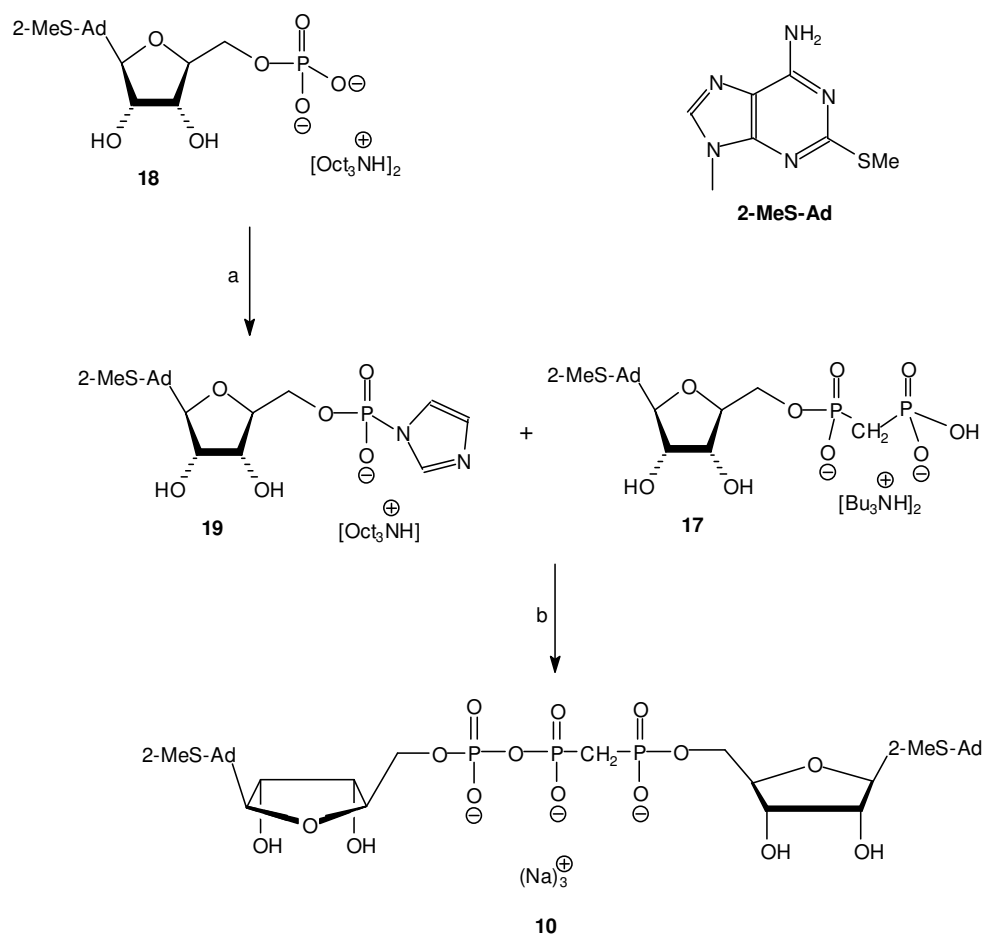


Scheme 1



Reaction conditions: a) $\text{HC}(\text{OMe})_3$, *p*-TsOH, DMF, RT, 24 h; b) POCl_3 , trimethylphosphate, proton sponge, -15°C , 2 h; c) 1 M TEAB, pH 7, RT, 1 h; d) POCl_3 , trimethylphosphate, proton sponge, -15°C , 2 h; e) 0.5 M bis(tributylammonium)methylene diphosphonate in dry DMF, Bu_3N , 0°C ; f) 0.2 M TEAB, pH 7, RT, 1 h; g) 18% HCl, pH 2.3, RT for 3 h followed by 24% NH_4OH , pH 9, RT for 45 min; h) CDI, DMF, RT, 3 h; i) MgCl_2 , RT, 12 h.

Scheme 2



Reaction conditions: a) CDI, DMF, RT, 3 h; b) MgCl_2 , RT, 12 h.