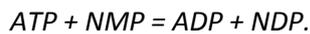
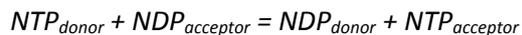


Is the PO₄²⁻ group found in a nucleotide derived from H₃PO₄

Every nucleotide has three phosphates. The first is from riboso-5-phosphate. The second is derived from ATP:

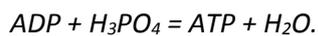


The third phosphorus is the result of a substrate phosphorylation:



This reaction is non-specific to the substrates, but ATP is the most common NTP donor, because it is present in higher concentrations than other nucleotides.

So, basically, PO₄²⁻ groups are derived from other NTPs, not H₃PO₄ itself. BUT oxidative synthesis of ATP follows this reaction:



To sum up, only terminal phosphate group of ATP can be derived from H₃PO₄.