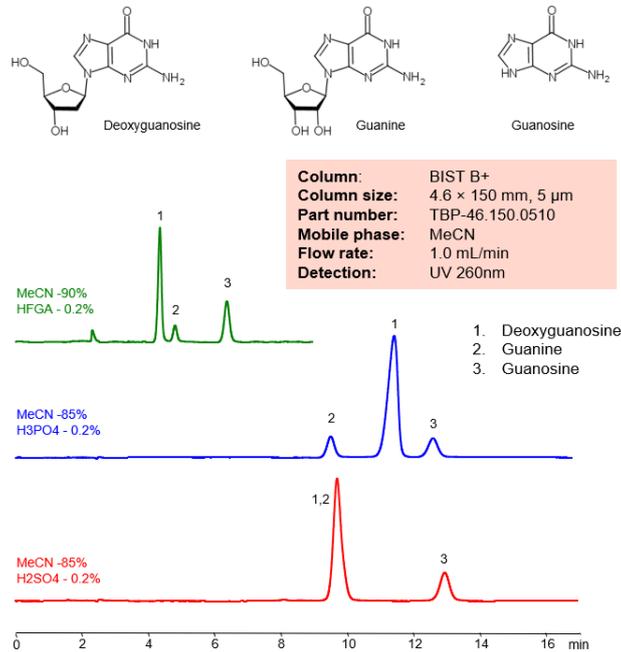


## Ionic Modifier Effect on Selectivity of Separation of Deoxyguanosine, Guanine and Guanosine on BIST B+



Deoxyguanosine is a deoxyribonucleoside with the chemical formula  $C_{10}H_{13}N_5O_4$ . It is a vital part of what makes up DNA.

Guanine, also noted as G and Gua, has the chemical formula  $C_5H_5N_5O$ . By forming three hydrogen bonds with the Cytosine, it creates a base pair. Its name comes from the Spanish term "guano", meaning bird or bat dropping, as that is said to have been how it was first discovered. Outside of DNA, Guanine that is harvested from fish scales, is occasionally used in cosmetics for its luster.

Guanosine is a purine nucleoside with the chemical formula  $C_{10}H_{13}N_5O_5$ . It can be phosphorylated into many other forms, which play vital roles in biochemical processes like synthesis of nucleic acids, proteins, photosynthesis, and more. It is also required for RNA splicing.

Deoxyguanosine, Guanine, Guanosine can be retained and analyzed using the BIST B+ stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water and acetonitrile (MeCN). Detection is performed using UV.

## Method Parameters

|                     |  |
|---------------------|--|
| <b>Column</b>       | BIST B+, 4.6 x 150 mm, 5 µm, 100 Å, dual ended       |
| <b>Mobile Phase</b> | MeCN   |
| <b>Buffer</b>       | H3PO4, H2SO4, HFGA (Hexafluoroglutaric acid) – 0.2%, |
| <b>Flow Rate</b>    | 1.0 mL/min   |
| <b>Detection</b>    | UV 260 nm  |

Quelle: <https://sielc.com/hplc-method-of-guanosine-2>