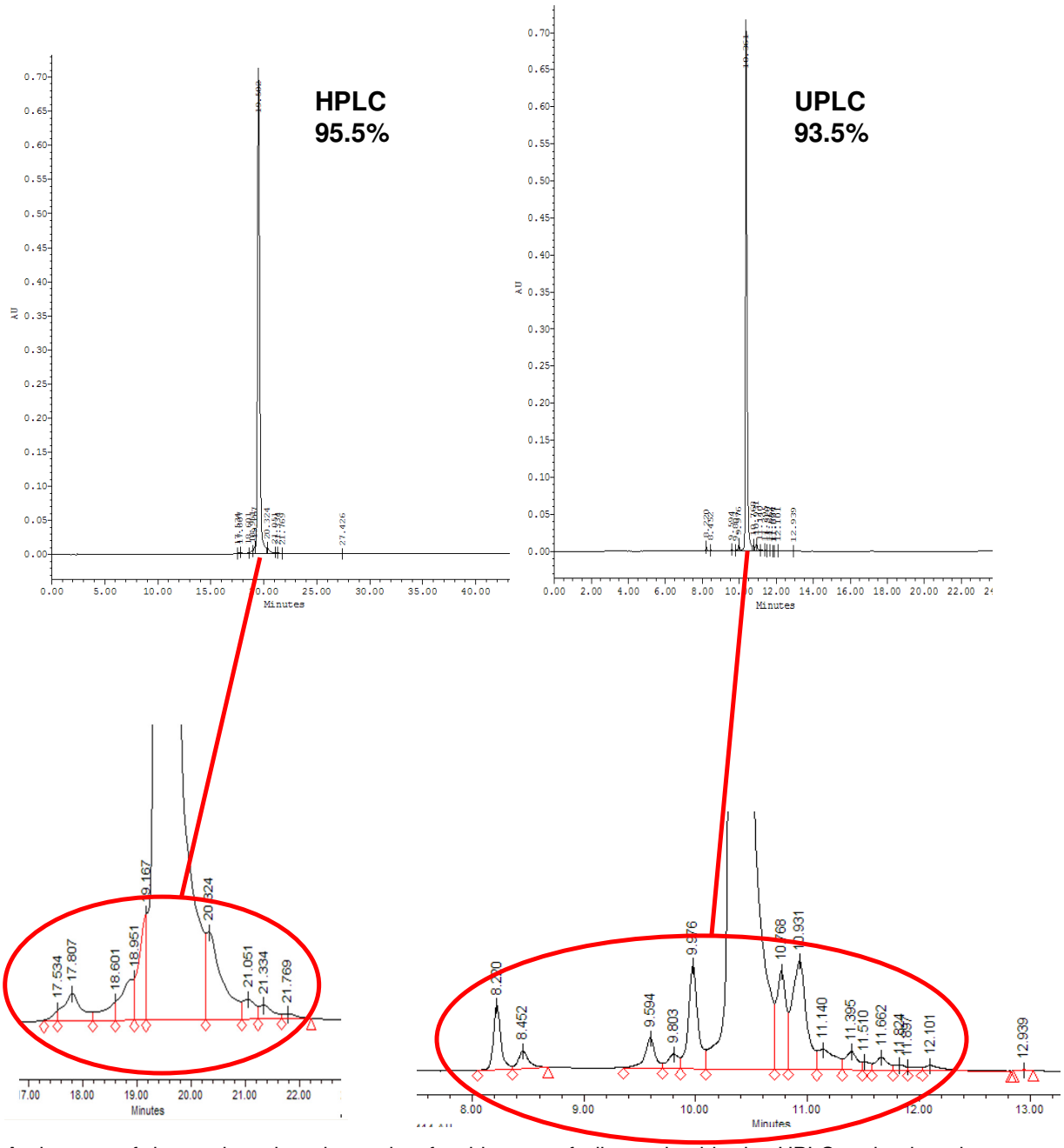
UPLC vs. HPLC

At SGS DNA we have a critical analytical approach to our products and strive to present as true purity values as possible. We use HPLC or UPLC to determine the purity of our products. All methods used have been validated for their purposes and in case we have several options, we always choose the method or technology with the highest sensitivity and resolution. For example, on long and complex molecules we perform the analyses on UPLC, as this technology gives more detailed information compared to the HPLC technology.

In order to illustrate this, we have analyzed a Scorpion oligonucleotide (63-mer modified with 5'-FAM, Dabcyl and a HEG spacer) with both technologies. The HPLC chromatogram of this product shows a purity of 95.5% whereas the UPLC chromatogram shows a purity of 93.5%, see below.



A close-up of the peak region shows that for this type of oligonucleotide the UPLC technology has higher sensitivity and better resolution, and hence this is the technology we use.