

Next generation RP phase for peptide purification

YMC-Triart Prep Bio200 C8

Abstract

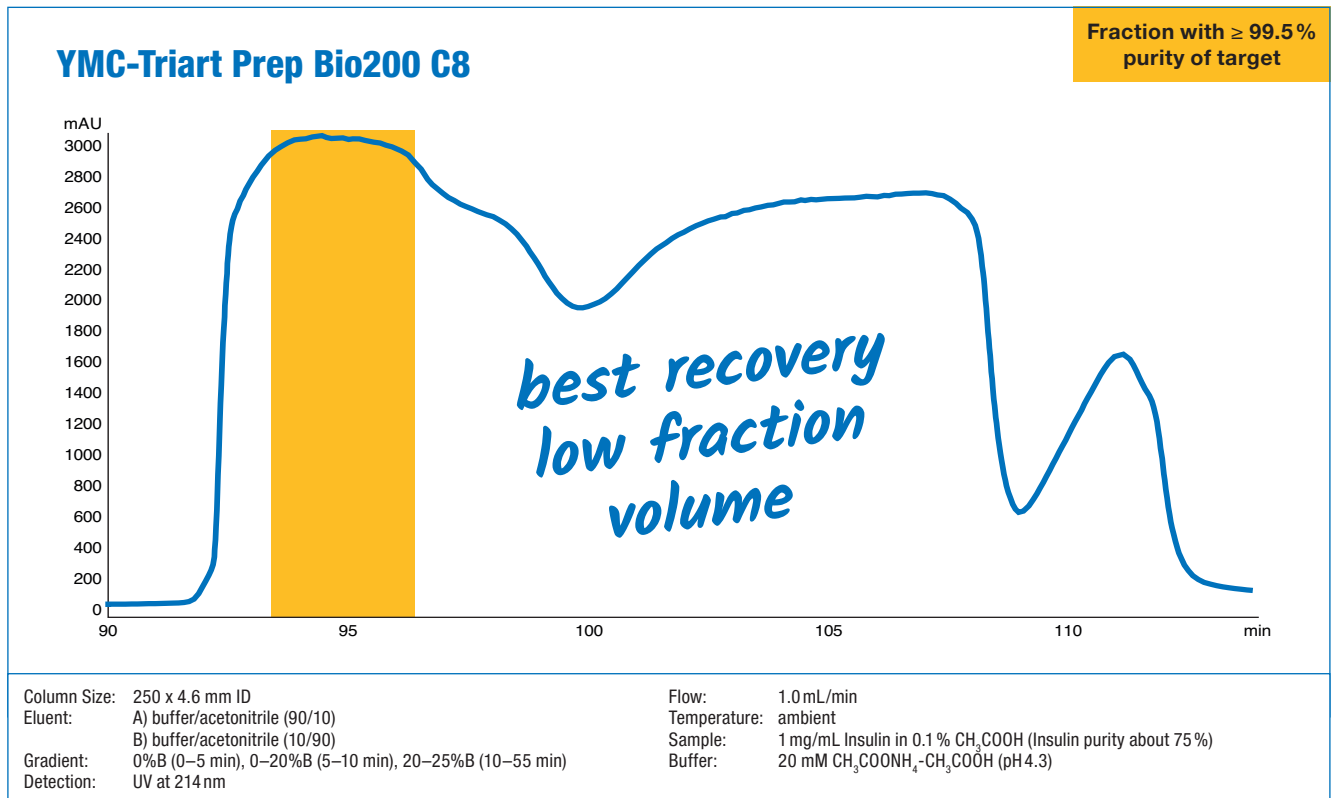
For the purification of insulin, YMC have specifically developed a new reversed phase material. This new phase addresses the specific needs of insulin purification which results in up to 40% savings for every production process. It combines high loadability with the perfectly suited selectivity for peptides and long lifetimes.

Next generation RP for peptide purification

In cooperation with two independent insulin manufacturers YMC developed a new phase for insulin purification. The real-life data demonstrate the great potential for the optimisation of existing insulin processes. The performance of this new phase exceeded the expectations of the cooperating partners.

In fact, the loading can be up to 100% greater whilst still reaching purities of 99.5%!

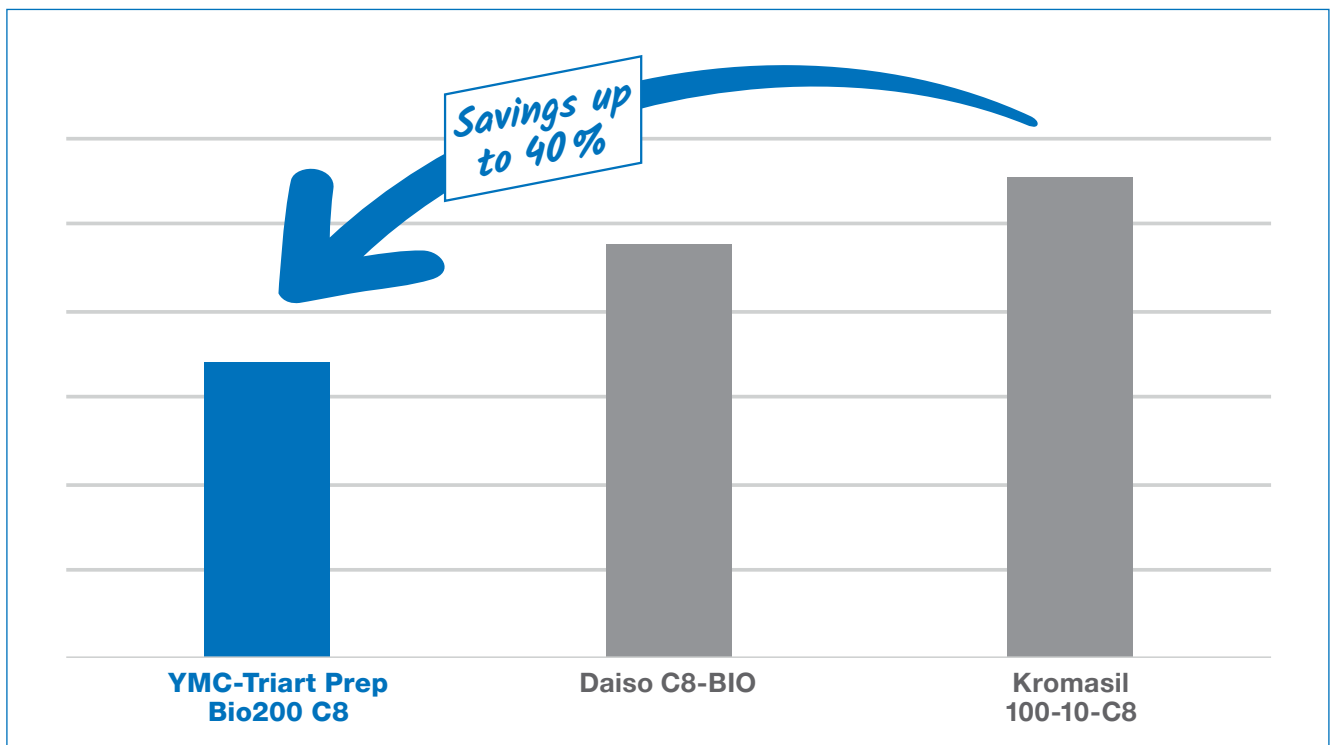
Screening results for a loading of 50 mg insulin



Purification of insulin

In cooperation with insulin manufacturer, real insulin samples were used to perform a comprehensive screening and process optimisation study. The screening of different stationary phases provided a profound data basis. It allowed an extensive a cost estimation for 100 kg purified insulin. A linear scale up to a 60 cm ID column was chosen as a realistic scenario. The target for the process is to produce insulin with a purity of 99.5%.

In summary, the **YMC-Triart Prep Bio200 C8** phase shows the highest performance, resulting in the greatest cost efficiency and productivity. The isolation of 100 kg insulin with a purity of 99.5% is achieved with the lowest number of injections. Moreover, the smallest amount of crude is needed with the YMC material which additionally improves the cost efficiency of the overall process.



Conclusions

In a detailed case study it was shown that **YMC-Triart Prep Bio200 C8** phase delivers up to 40% savings for the isolation of insulin. High loadability combined with the perfectly matched selectivity and long lifetimes result in a substantial reduction in operational costs. YMC-Triart Prep Bio200 C8 achieves the best possible process. It outperforms many other phases with regards to speed, economy, ecology and efficiency.

Contact YMC for your free sample today and discover the qualities of YMC-Triart Prep!