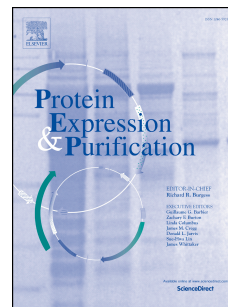


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Downstream processing of a plant-derived malaria transmission-blocking vaccine candidate

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1 **Downstream processing of a plant-derived malaria transmission-blocking vaccine**
2 **candidate**

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15 **Key words:** blanching; design of experiments; downstream processing; liquid handling
16 station; plant-derived biopharmaceuticals

17 **Running title:** Vaccine candidate purification

18

19 **Abbreviations:** AEX – anion exchange; CV – column volume; DF – diafiltration; DoE –
20 design of experiments; DSP – downstream processing; FT – flow through; HCP – host cell
21 protein; HIC – hydrophobic interaction chromatography; mAb – monoclonal antibody; NTU –
22 nephelometric turbidity unit; SD – standard deviation; TSP – total soluble protein; UF –
23 ultrafiltration

24

25 **Highlights:**

26 - Optimization of a blanching procedure for the malaria vaccine candidate FQS.

27 - Loss of mAb 4B7 reactivity restored by reducing blanching temperature from 80°C to 70°C.

28 - Downstream processing of FQS using blanching combined with HIC.

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