

Surface Charge Dependent Separation of Modified and Hybrid Ferritin in Native PAGE: Impact of Lysine 104

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Native PAGE, a simple, straight-forward technique, can be used to analyze small modification (by altering external surface charge) in large proteins like ferritin (M.W. = 490 kDa), without disintegrating its self-assembled nanocage structure. In doing so, native PAGE can complement the information obtained from mass spectrometry. The confirmation and separation of modified and hybrid ferritin protein nanocages in native PAGE, opens up various prospects of bio-conjugation, which can be useful in targeted drug delivery, nanobiotechnology and in understanding nature's idea of synthesizing hybrid ferritins in different human tissues.

More in *BBA Proteins and Proteomics*; 2017, 1865 (10), 1267-73; <https://doi.org/10.1016/j.bbapap.2017.07.012>

