Single-molecule counting is the most accurate and precise method for determining the concentration of a biomarker in solution and is leading to the emergence of digital diagnostic platforms enabling precision medicine. In principle, solid-state nanopores, molecular scale holes in thin insulating membranes, should be well-suited to the task, given their single-molecule sensitivity and fully electronic detection capability. Yet, a number of challenges remain. In this talk, I will present a digital sensing scheme capable of reliably quantifying the concentration of a target protein in complex biofluids that overcomes specificity, sensitivity, and consistency challenges associated with the use of solid-state nanopores for protein sensing.