ABSTRACT There is an urgent need to find reliable and relevant diagnostic tools for patients with autoimmune urticaria especially in a developing country such as Indonesia. The basophil histamine release assay (HRA) is currently the “gold standard” for detecting functional autoantibodies in serum of patients with chronic urticaria. However, this bioassay is difficult to standardize because it requires fresh basophils from healthy donors, is not widely commercially available, and is time consuming. The detection of patients with autoantibodies using in vivo autologous serum skin test (ASST) also poses challenges. Firstly, the ASST is at best around 80% sensitive and specific using in vitro HRA as the “gold standard”, and secondly, there is some divergence results obtained by different methods used to detect patients with autoantibodies, due to inconsistency in methods, results and interpretation of the ASST in the literatures. The purpose of this study was to find and develop a new method of ASST. This new method should be practical and with higher reliability (sensitivity and specificity) as a diagnostic tool for autoimmune urticaria. The method used in this study was to perform a preliminary study followed by advanced study through cross sectional designs. The results of this study showed that the new ASST, has a higher reliability than the former ASST methods reported in literatures. In addition, we also found that disease severity with cut-off value of