

HALOLINK™ PROTEIN ARRAYS FOR FUNCTIONAL ANALYSIS OF PROTEINS

Patricia Bresnahan

Promega Corporation 2800 Woods Hollow Road, Madison, WI 53711

Detection of protein interactions and function are key for identifying protein networks and understanding cellular processes. With miniaturization and multiplexing capabilities, protein arrays have found wide application in deciphering protein interaction networks. Here we present an integrated approach for creating protein arrays that combines *in-vitro* protein expression of a probe protein with HaloTag® immobilization technology. The method allows for rapid and covalent capture of HaloTag fusion proteins onto a glass slide surface directly from complex protein mixtures (e.g. cell lysates) without any prior purification. Multiple functional analysis of proteins of interest may be performed in parallel with these arrays. Examples of this analysis are reported, including end-point and kinetic protein-protein interactions, protein-DNA interactions, and modulation of protein interactions with agonists and antagonists.