

LifeSensors' Ubiquitin Protein Microarray Services

Microarray Service	Approach	Client material	Deliverable	Turn-around
DUB Substrate ID™ Identify substrates for your DUB Cat. # MA104	1. Employs 2 'fully' ubiquitylated protein microarrays, generated using a cocktail of E2 and E3 enzymes to ensure that all possible ubiquitylation events are represented from candidate proteins 2. Deubiquitylate one array with your DUB 3. Difference in ubiquitylation pattern between these arrays indicates substrates	Client's DUB	Summary report, list of candidate DUB substrates, raw data, statistical analysis and gene ontology (GO) clustering of putative substrates	3-5 weeks
DUB ID™ Determine DUBs that deubiquitylate your substrate Cat. # MA103	1. Array is probed with client's ubiquitylated substrate (tagged or untagged) 2. Bound substrate is detected with antibody to client's substrate or associated tag	1. Client's substrate 2. Detection antibody for client's substrate (substrate or tag)	Summary report, list of candidate DUBs, raw data & statistical analysis	3-5 weeks
E3 Substrate ID™ Identify substrates for your E3 ligase Cat. # MA102	1. Determination of optimal E2/E3 pairing across twenty human E2s using our E2 Profiling Kit (cat. no. UC102) 2. Ubiquitylation of protein microarray using optimal E2/E3 pair 3. Detection of ubiquitylated substrates using an ubiquitin antibody or TUBEs	Client's E3	Summary report, list of candidate E3 substrates, raw data, statistical analysis and gene ontology (GO) clustering of putative substrates	3-5 weeks
E3 ID™ Determine E3 Ligases that ubiquitylate your substrate Cat. # MA101	1. Probe human protein microarray with client's substrate 2. Detect specific E3-substrate protein-protein interactions using antibody to client's substrate or associated tag	Client's substrate	Summary report, list of candidate E3s, raw data & statistical analysis	3-5 weeks

LifeSensors' microarrays can bring your ideas to reality.

Services are not limited to that described above. Studies can be extended to characterization of chain linkage specificity to determine which ubiquitin chain linkages your E3 makes or your DUB prefers. LifeSensors has observed that substrate specificity of E3s can change in the presence of single-lysine mutants of ubiquitin. If you have an experimental question that could be applied to the array, we would be happy to provide a free consultation and develop a customized service for you.