Monospecific Mouse Monoclonal Antibodies

The immunohistochemical localization of specific antigens on formalin-fixed and paraffin embedded (FFPE) tissue sections plays key role in determining tumor tissue origin, prognostic marker expression and target protein expression. Traditionally, antibodies (monoclonal and polyclonal) are raised against a specific proteins/peptides and screened by ELISA, gel electrophoresis and FFPE tissue stains. However, the antibody specificity has never been scrutinized by sophisticated method until recently.

Zeta Monospecific Mouse Monoclonal Antibodies were produced through traditional hybridoma technologies. The clones were first screened by ELISA and gel electrophoresis to determine their specificity. The selected antibodies were further screened by staining FFPE sections. Only those antibodies that worked on FFPE sections were selected for protein array analysis.

A protein microarray (or protein chip) for selection of monospecific antibody is a high-throughput method used to track the specific antigen-antibody interactions on a large scale. The chip consists of a support surface such as a glass slide, to which an array of capture proteins is bound. For monospecific antibody selection, close to 20,000 known human proteins are bound to a glass slide. Antibodies, labeled with a fluorescent dye, are added to the array. Any interaction between the protein and antibody immobilises protein emits a fluorescent signal that is read by a laser scanner. The intensity of fluorescent determines the specificity of an antibody.

List of Zeta monospecific mouse monoclonal antibodies:

B-Catenin	**BCL-6**	**BOB-1**	**CD11C**
Calretinin	**CD11C**	**CD163**	**CD21**
CD3	**CD5**	**CD68**	**Chromogranin**
E-Cadherin	**GCDFP-15**	**Glypican-3**	**Mammaglobin**
Mesothelin	**Napsin A**	**NKX2.2**	**NKX3-1**
NSE	**OCT-2**	**Olig2**	**P63**
PAX-5	**PAX-8**	**Podoplanin**	**SOX-2**
SOX-10	**TLE1**	**ZAP70**	