

Screening by Shotgun MS

Tissue samples of cerebral melanoma metastases: poor responder n=5, good responder n=13

A) EMT by DAVID, KEGG and GSEA for poor responder

B) 9 proteins signature by nearest shrunken centroid for poor responder

C) Immune activity for good responder

Functional verification

- EMT induction by TGF β
- Identification of signature of poor responder

Validation

1. Primary melanoma cell cultures defined by IC50 to MAPKi resistant n=2, sensitive n=3
 - 1.1 ICC Staining *correlation for A*
 - 1.2 WB *correlation for A*
2. Correlation of 9 proteins signature (correlation for B) to resistance by CPL/MUW proteome database

Quantification and Validation

Targeted MS approach

1. Tissue samples of shotgun MS poor responder n=7, good responder n=4
2. added Tissue samples poor responder n=1, good responder n=4
correlation for B

Clinical relevance

1. TCGA melanoma samples n=456, *correlation for B*
2. IHC poor responder n=6 (samples: 15), good responder n=5 (samples: 7)
correlation for C