KNIGHT DIAGNOSTIC LABORATORIES
KNIGHT CANCER INSTITUTE, OREGON HEALTH & SCIENCE UNIVERSITY
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Intracellular Signaling Protein Panel

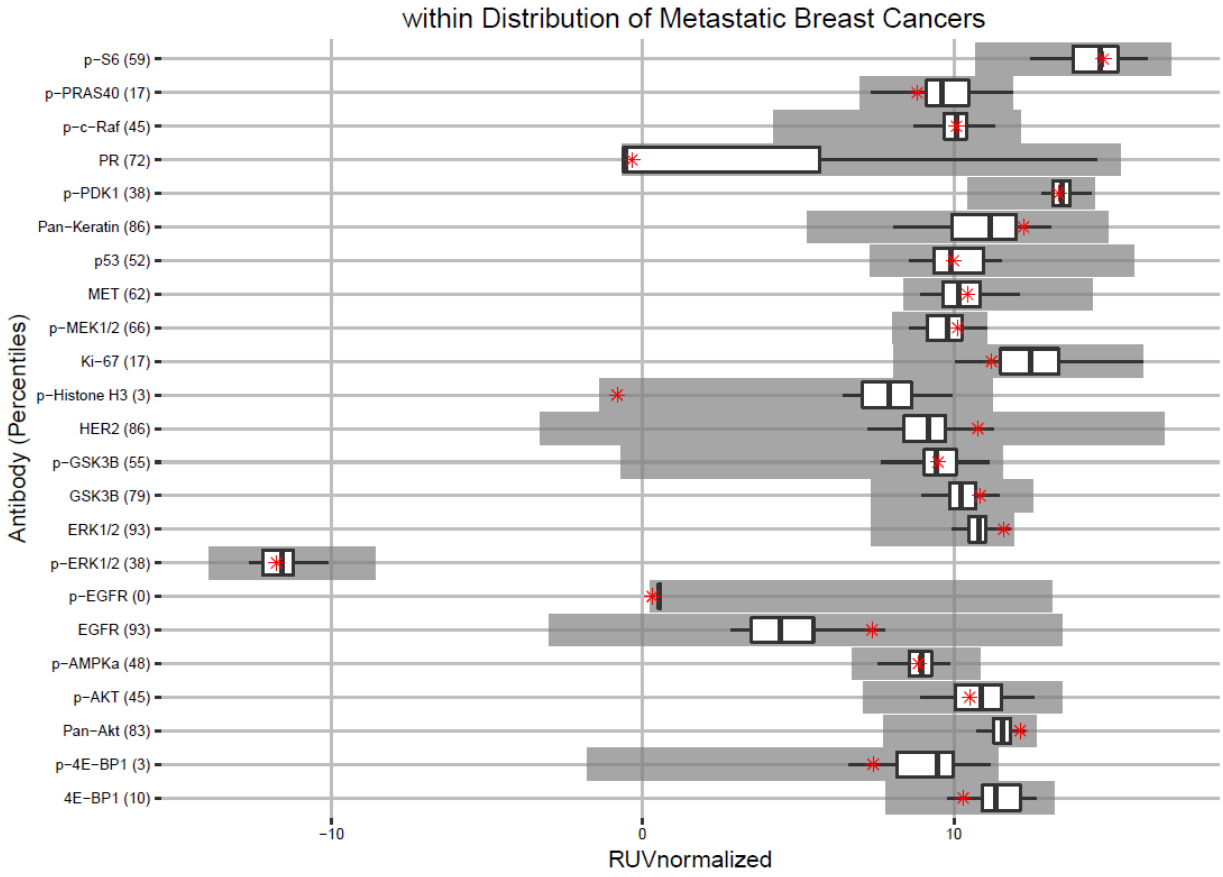
Patient: Bunny, Bugs **MRN:** 12345678 **DOB:**

Accession #: DNXX-00123 **Ordering physician:** Zahi Mitri, M.D.

Specimen collection date: **Report date:**

Specimen submitted: Liver, right lobe, core biopsies

Results: Gray bars represent range of signal seen across 53 FFPE tumor samples and 6 cell lines. Open boxes represent the 2nd and 3rd quartiles (25% to 75%) for signals from 28 metastatic breast cancer samples (14 HR+/HER2-, 10 TNBC, 2 HR+/HER2+, 2 HR-/HER2+). The black lines are the median signals, and the whiskers show the min/max ranges for this cohort.



Estimated tumor fraction in tested material: 65%

About the assay: The Intracellular Signaling Protein Panel is based on the Vantage 3D Protein Solid Tumor Panel (FFPE) from Nanostring, Inc. It consists of a cocktail of 22 oligonucleotide-tagged antibodies designed primarily to bind to specific proteins involved in intracellular signaling or to specific sites of phosphorylation on these proteins. In addition, non-specific mouse IgG1 and rabbit IgG antibodies are included in the panel as controls for background binding (total of 24 antibodies).

4E-BP1	Phospho-4E-BP1	Phospho-PDK1
EGF Receptor	Phospho-EGF Receptor	Phospho-Histone H3
p44/42 MAPK ERK1/2	Phospho-p44/42 MAPK ERK 1/2	Phospho-PRAS40
Pan-Akt	Phospho-Akt	HER2
GSK-3B	Phospho-GSK-3B	Progesterone Receptor
Phospho-AMPKa	Phospho-S6 Ribosomal Protein	Ki-67
Phospho-c-Raf	Phospho-MEK1/2	Met
		Pan-Keratin

The assay is performed using a single 4-5 micron section of formalin-fixed, paraffin-embedded (FFPE) tissue containing a minimum estimated tumor fraction of 40-50% within the region selected for testing. After overnight antibody binding, oligonucleotides are released by exposure to UV light and quantitated using a standard Nanostring detection kit on a MAX NCounter system. Sections of FFPE cancer cell lines are included as positive and negative controls in every run. The quantitated antibody signals are mapped and reported relative to data from a cohort of previously analyzed metastatic carcinomas matching the submitted tumor (e.g. breast carcinoma, prostate carcinoma). If there is a prior biopsy of the same tumor, the results for both may be plotted relative to the reference cohort.

Case reviewed by:
Christopher Corless, M.D., Ph.D. /Pathologist
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