

Phosphatidylinositide-3-kinases (PI3K) comprise a family of lipid kinases that are often associated with cell proliferation and apoptosis. Research has demonstrated the impact that PIK3CA gene mutations have on these processes in breast cancer.

# The Agena Bioscience® Solution

- > Detect variants as low as 1% variant allele frequency.
- ➤ Utilize a variety of sample sources, including formalin-fixed, paraffin embedded tissue with less than 10% tumor burden.¹
- > Obtain results quickly and at a low cost.



## Genes & Variants

Pre-designed panel for the identification of variants across the PIK3CA gene.

| Gene            | Variants   |
|-----------------|--|
| PIK3CA          | p.C420R  |
|                 | <b>p.E542K</b> , p.E542Q   |
|                 | <b>p.E545K,</b> p.E545Q, <b>p.E545A, p.E545G,</b> p.E545V, <b>p.E545D</b> ( <b>G&gt;T</b> and G>C) |
|                 | p.Q546K, <b>p.Q546E,</b> p.Q546P, <b>p,Q546R,</b> p.Q546L  |
|                 | p.H1047N, <b>p.H1047Y,</b> p.H1047P, <b>p.H1047R, p.H1047L</b>                                     |
| Total Variants: | 20   |

### **ASSAY WORKFLOW**

DNA to data in as little as 8 hours with minimal manual processing time enables greater lab efficiency. Software is designed to simplify data analysis.

#### ORDERING INFORMATION

The assay panel set is available for use on the MassARRAY® System with Chip Prep Module in 96-format. The panel set contains assay-specific primers and all the required reagents to process DNA samples on the MassARRAY System.

| Catalog No. | Item                                       | Sample Type | # Samples | Chip Format |
|-------------|--|-------------|-----------|-------------|
| 13316F      | PIK3CA Breast Panel (RUO) Set - CPM (5x96) | Tissue      | 160       | CPM-96      |

#### References

1. AH Box et. al. Evaluation of a Mass Spectrometry-Based PIK3CA Mutation Assay for Predictive Breast Cancer Therapeutic Decision Making. Poster session presented at: Association of Molecular Pathology Annual Meeting; 2020

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