

Foundation Findings: Publication Details

Multiple *PIK3CA* mutations in cis increase oncogenicity and sensitivity to PI3Kα inhibitors¹

FoundationOne®Liquid detected multiple mutations of *PIK3CA*, which are frequent in breast cancer patients and have shown increased response to targeted therapy, as published recently in *Science*. To see full publication please visit: <https://science.sciencemag.org/content/366/6466/714.full> or reference Vasan et al, *Science*.

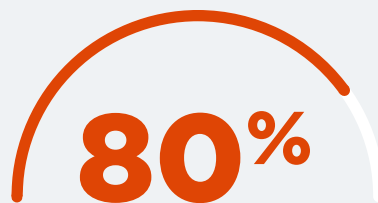
"The common practice of sequencing only certain single-nucleotide variants or some but not all exons across a gene likely underestimates the frequency of multiple mutations in *PIK3CA* mutant cancers at <1%.²⁻³ In fact, the true frequency is ~10 to 19%, which translates to a clinically meaningful number of patients who may derive additional benefit from this targeted therapy."

— Neil Vasan et. al., in *Science*

508 patients received FoundationOne Liquid testing in the SANDPIPER phase III clinical trial



339 PATIENTS TESTED POSITIVE FOR *PIK3CA* MUTATIONS

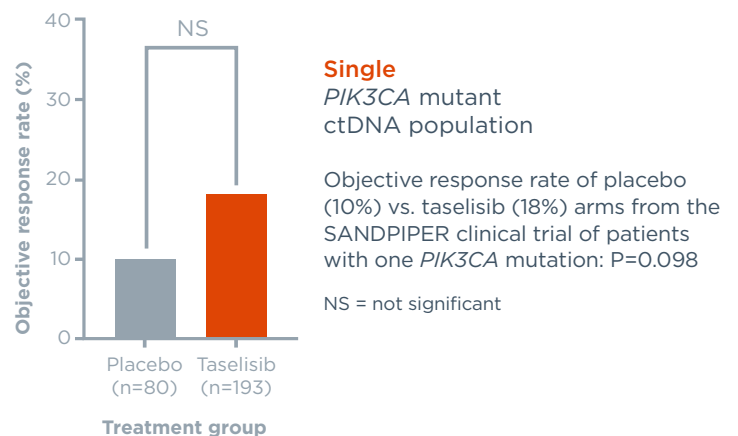
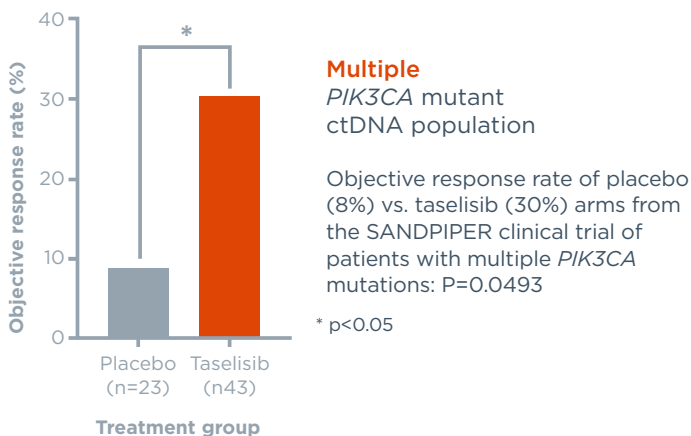


WITH ONE *PIK3CA* MUTATION

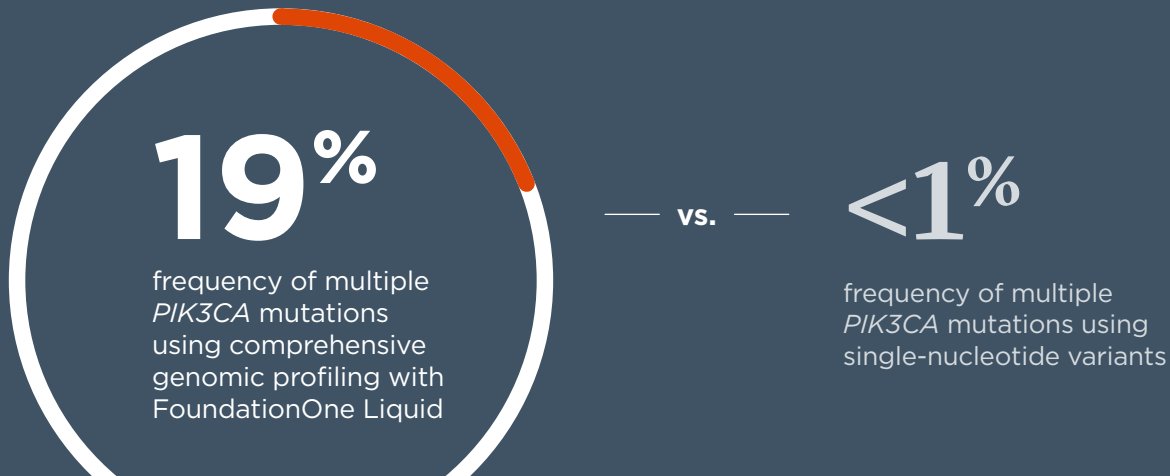


SANDPIPER Phase III Trial Details

Efficacy of taselelisib (GDC-0032) in combination with fulvestrant, versus a placebo and fulvestrant, in a metastatic ER+/HER2- breast cancer patient population enriched with *PIK3CA* mutations.



Frequency of multiple *PIK3CA* mutations in *PIK3CA* mutated cancers



Why FoundationOne® Liquid?

FoundationOne Liquid is a laboratory developed comprehensive genomic profiling test that can detect multiple *PIK3CA* mutations in your ER+/HER2- locally advanced or metastatic breast cancer patients as demonstrated in this publication.

Foundation Medicine is the only company with a proven portfolio of comprehensive genomic profiling tests - from a blood draw or tissue biopsy - that has demonstrated clinical utility for patients with advanced breast cancer.



Fast results in less than two weeks²



Tests include guideline-recommended genes in Breast Cancer

ERBB2 | BRCA 1/2 | PIK3CA



Decision support services included with every case

The SANDPIPER trial employed investigational use of the FoundationOne Liquid assay. FoundationOne Liquid is a laboratory developed test that was developed and its performance characteristics determined by Foundation Medicine.

References

1. Vasan et al., *Science*, 366, 714-723 (2019)
2. L.H. Saal et al., *Cancer Res.* 65, 2554-2559 (2005).
3. T.L. Yuan, L.C. Cantley, *Oncogene*, 27, 5497-5510 (2008).
4. K. Jhaveri et al, *Cancer Res.* 78, CT046 (2018).