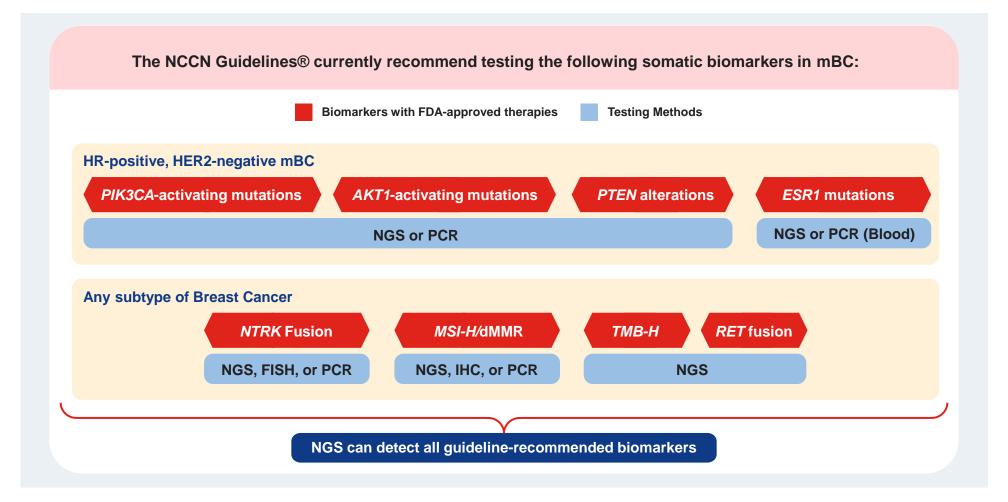
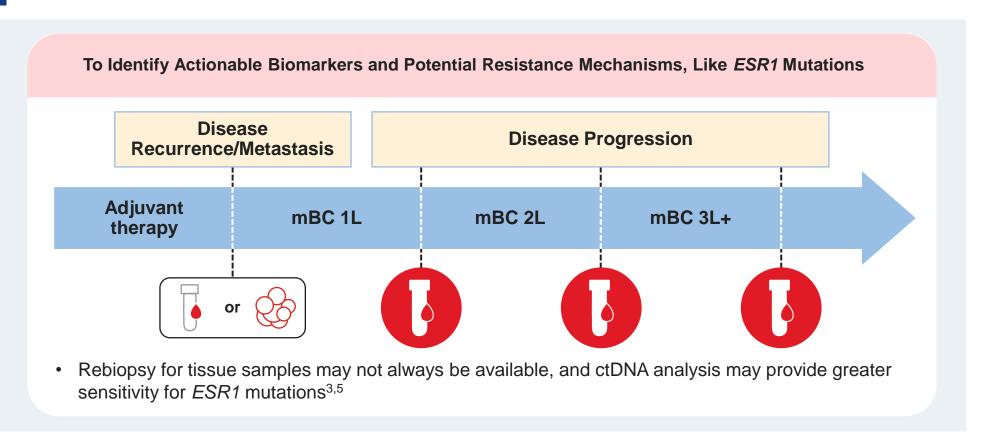
GUIDELINE RECOMMENDATIONS AND APPROPRIATE TESTING METHODOLOGIES FOR IDENTIFYING ESR1 MUTATIONS IN ER+, HER2- ADVANCED BREAST CANCER

The NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) Recommend Comprehensive Genomic Profiling at Diagnosis of mBC¹



Guidelines Recommend Genomic Profiling at Recurrence or Progression on ET in ER+, HER2-mBC²⁻⁵



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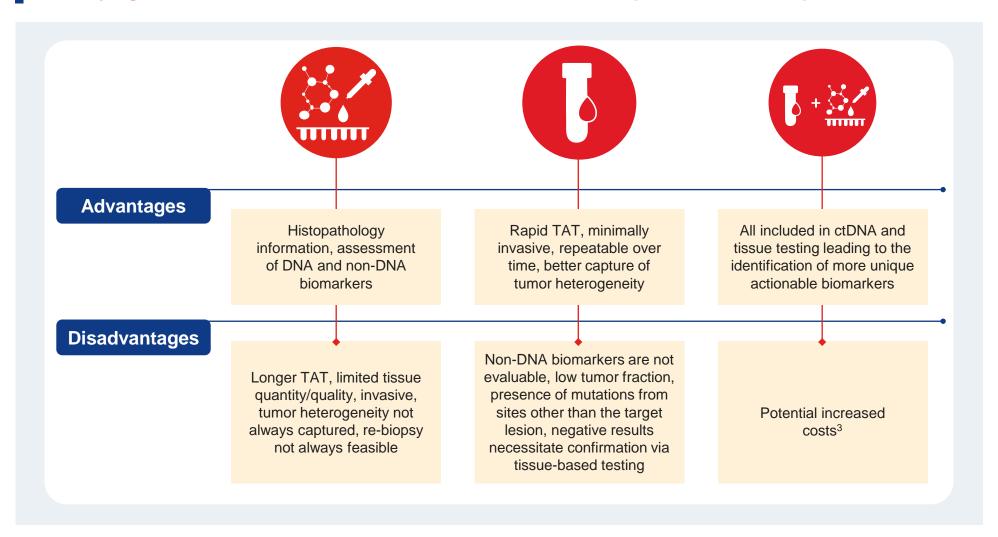
Tensin Homolog; TMB-H=High Tumor Mutational Burden; 2L=Second-line; 3L=Third-line.

1. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Breast Cancer V.4.2025 © National Comprehensive Cancer Network, Inc 2025. All rights reserved. Accessed April 22, 2025. To view the most recent and complete version of the guidelines, go online to NCCN.org. 2.Burstein HJ, et al. *J Clin Oncol.* 2023;41(18):3423-3425. 3. Clatot F, et al. *Oncotarget.* 2016;7(46):74448-74459. 4. Al-Qasem AJ, Alves CL, Ditzel HJ. Cancers (Basel). 2021;13(21):5397. 5. Lone SN, et al. Mol Cancer. 2022;18;21(1):79.



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Identifying Driver Mutations to Inform Treatment Decisions: Liquid vs Tissue Biopsies^{1,2}



Testing for ESR1 Mutations: PCR-Based vs NGS-Based Assays4-6



- NGS hybrid capture and amplicon assays
- Good to high sensitivity
- Compatible with liquid and tissue biopsy samples
- Detect any ESR1 mutation
- Include other biomarkers like PIK3CA, AKT1, and PTEN



PCR-Based Assays

- ddPCR and qPCR assays
- Good to very high sensitivity
- Compatible with liquid and tissue biopsy samples
- Detect only predetermined ESR1 mutations
- May not include other biomarkers

Mutations commonly detected by PCR assays cover >90% of ESR1 mutations frequently observed in patients.^{4,7-9} However, these assays do not include rare mutations or other biomarkers.^{4,6}

Commercial PCR- and NGSbased assays to test for *ESR1* mutations are available.¹

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1. Mazzitelli C, et al. *Diagnostics*. 2023;13(7):1241. 2. lams WT, et al. *JAMA Network Open*. 2024;7(1):e2351700. 3. Rivers Z, et al. Abstract presented at San Antonio Breast Cancer Symposium; December 10-14, 2024. 4. Dustin D, et al. *Cancer*. 2019;125(21):3714-3728. 5. Brett JO, et al. *Breast Cancer Res*. 2021;23(1):85. 6. Raei M, et al. *BMC Cancer*. 2024;24(1):908. 7. Corné J, et al. *Clin Chim Acta*. 2023;545:117366. 8. Kingston B, et al. *Cancer Discov*. 2024;14(2):274-289. 9. Grinshpun A, et al. *Biochim Biophys Acta Rev Cancer*. 2023;1878(1):188830.

