# 70-Gene Assay (MammaPrint) is the ONLY Genomic Assay with FDA Clearance and Category 1 Evidence According to Both National Comprehensive Cancer Network® (NCCN®) and American Society of Clinical Oncology (ASCO®)



## National Comprehensive Cancer Network® (NCCN®)

PATIENT GROUP	RECOMMENDATION	CATEGORY OF EVIDENCE
ER/PgR-positive, HER2-negative, lymph node negative breast cancer	70–gene assay (MammaPrint) received an NCCN Category 1 Evidence and Consensus recommendation.	1
ER/PgR-positive, HER2-negative,  1-3 lymph node positive  breast cancer	Of the multigene assays considered for lymph node positive breast cancers, only the 70–gene assay (MammaPrint) was given Category 1 endorsement.  All other multigene assays for lymph node-positive breast cancer were given a Category 2A recommendation.	1

Adapted with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines\*) for Breast Cancer V.3.2018. © 2018 National Comprehensive Cancer Network, Inc.
All rights reserved. The NCCN Guidelines\* and illustrations herein may not be reproduced in any form for any purpose without the express written permission of NCCN. To view the most recent and complete version of the NCCN Guidelines, go online to NCCN.org. The NCCN Guidelines are a work in progress that may be refined as often as new significant data becomes available.

NCCN makes no warranties of any kind whatsoever regarding their content, use or application and disclaims any responsibility for their application or use in any way.

# American Society of Clinical Oncology (ASCO®)

PATIENT GROUP	RECOMMENDATION	EVIDENCE
ER/PgR-positive, HER2-negative,  lymph node negative  breast cancer	MammaPrint may be used in patients with high clinical risk per MINDACT categorization to inform decisions on withholding adjuvant systemic chemotherapy due to its ability to identify a good prognosis population with potentially limited chemotherapy benefit.	TYPE: Evidence-based EVIDENCE QUALITY: High STRENGTH: Strong
ER/PgR-positive, HER2-negative,  1-3 lymph node positive breast cancer	MammaPrint may be used in patients at high clinical risk per MINDACT categorization to inform decisions on withholding adjuvant systemic chemotherapy. However, such patients should be informed that a benefit of chemotherapy cannot be excluded, particularly in patients with greater than one involved lymph node.	TYPE: Evidence-based EVIDENCE QUALITY: High STRENGTH: Moderate

### 70-Gene Assay (MammaPrint): Recommended in International Breast Cancer Clinical Practice Guidelines

Following the publication of the results of MINDACT <sup>1</sup> in the New England Journal of Medicine in August 2016, the medical societies that reviewed the findings have included or expanded their recommendation of MammaPrint based on this landmark clinical trial.



#### REFERENCES

- <sup>1</sup> Cardoso F, van't Veer LJ, Bogaerts J et al. 70-Gene Signature as an Aid to Treatment Decisions in Early-Stage Breast Cancer. N Engl J Med 2016; 375: 717-29.
- <sup>2</sup> Online Version of Dutch Guidelines. Accessed 18 October 2018 (http://richtlijnendatabase.nl/en/richtlijn/breast\_cancer/risk\_profiling/gene\_expression\_profiles/prognostic\_value.html)
- <sup>3</sup> Curigliano G, Burnstein H, Winer E et al. De-escalating and Escalating Treatments for Early Stage Breast Cancer: The St. Gallen International Expert Consensus Conference on the Primary Therapy of Early Breast Cancer 2017. Ann Oncol 2017 mdx308.
- <sup>4</sup> Senkus E, Kyriakides S, Ohno S, et al. Primary breast cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. Ann Oncol (2015) 26 (suppl\_5): v8-v30
- <sup>5</sup> American Joint Committee on Cancer 2017. M.B.Amin et al. (eds.) AJCC Cancer Staging Manual, 8th Edition.
- <sup>6</sup> AGO Breast Committee. Diagnosis and Treatment of Patients with Primary and Metastatic Breast Cancer. Recommendations 2018. Accessed 18 October 2018 (http://www.ago-online.de/en/guidelines-mamma/march-2018/)

- <sup>7</sup> Duffy MJ, et al. Clinical use of biomarkers in breast cancer: Updated guidelines from the European Group on Tumor Markers (EGTM). Eur J Cancer. 2017 Feb 27;75:284-298.
- <sup>8</sup> Krop I, Ismaila N, Andre F et al. Use of Biomarkers to Guide Decisions on Adjuvant Systemic Therapy for Women With Early-Stage Invasive Breast Cancer: American Society of Clinical Oncology Clinical Practice Guideline Focused Update. DOI: 10.1200/JCO.2017.74.0472 Journal of Clinical Oncology published online before print July 10, 2017.
- <sup>9</sup> Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines\*) for Breast Cancer V.3.2018. <sup>©</sup> National Comprehensive Cancer Network, Inc. 2018. All rights reserved. Accessed October 25, 2018. To view the most recent and complete version of the guideline, go online to NCCN.org. NCCN makes no warranties of any kind whatsoever regarding their content, use or application and disclaims any responsibility for their application or use in any way.