



# TrueMark MSI Assay for research

## Easier, more comprehensive MSI testing

### MSI analysis applications

Microsatellite instability (MSI) is the condition of genetic hypermutability that results from impaired DNA mismatch repair (MMR). The presence of high levels of MSI (MSI-H) may serve as a marker for some conditions associated with increased cancer growth across a variety of tumor types including colorectal, gastric, and endometrial cancers.

Defects in MMR also result in novel somatic mutations in unrelated loci throughout the genome. These mutations can produce novel immunogenic proteins that can “prime” an immune response to the foreign neoantigens in the tumor. MSI-H tumors are potentially more sensitive to immune checkpoint inhibitors than microsatellite-stable (MSS) tumors. There is therefore substantial interest in studying MSI in diverse tumors to identify those in which growth might be slowed by immune checkpoint inhibitors.

## The TrueMark MSI Assay offers an expanded panel and does not need a normal control

The Applied Biosystems™ TrueMark™ MSI Assay is a low-input, affordable research assay with an expanded panel with 13 MSI markers (Table 1) and includes Applied Biosystems™ TrueMark™ MSI Analysis Software. Using only 2 ng of DNA derived from formalin-fixed, paraffin-embedded (FFPE) samples, the entire workflow takes as little as 4 hours to determine accurate sample status (Figure 1). The TrueMark MSI Assay leverages a 6-dye set to incorporate additional markers and does not require the use of a tumor-normal match, cutting the number of wells required per sample in half and reducing sample-handling burden. The TrueMark MSI Assay is designed to run on Applied Biosystems™ SeqStudio™ and 3500 Series genetic analyzers.

## Simple analysis with automated calling

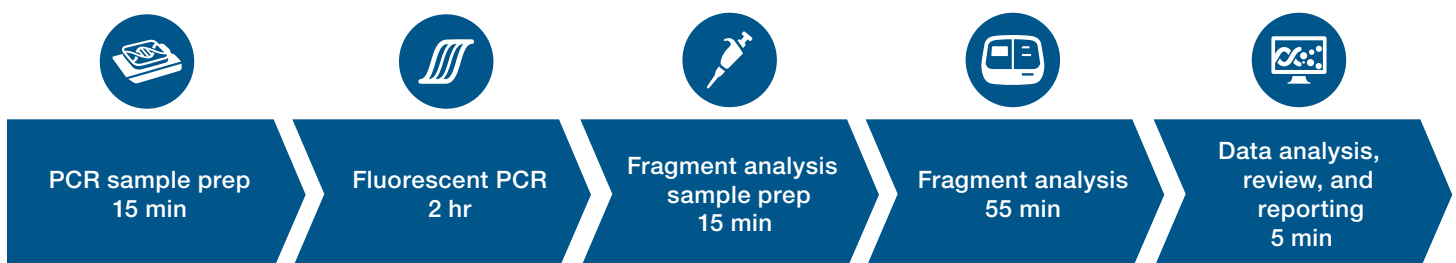
Included at no additional cost, TrueMark MSI Analysis Software is designed specifically for the TrueMark MSI Assay to enable greater ease of analysis and reporting for your research.

## TrueMark MSI Analysis Software for your research offers:

- Automated calling of markers and samples
- Straightforward QC and review steps
- Simple review of individual specimens and batches
- An easy workflow for selecting markers to include in analysis and making manual calls when needed
- Fast export of results into multiple file formats (PDF, CSV, VCF)
- Compatible with Ion Torrent™ OncoPrint™ Reporter to produce clear and concise reports that summarize relevant biomarkers with information from associated research

**Table 1. The TrueMark MSI Assay includes 13 MSI markers and 2 sample identification markers.**

Markers	Description
BAT-25, BAT-26, BAT-40, CAT-25, NR-21, NR-22, NR-24, NR-27	Publicly known MSI markers
ABI-16, ABI-17, ABI-19, ABI-20A, ABI-20B	MSI markers proprietary to Applied Biosystems
PentaD, TH-01	Sample identification markers



**Figure 1. Enjoy a simple, rapid workflow.** Go from extracted DNA to results in as little as 4 hours with less than 1 hour of hands-on time.

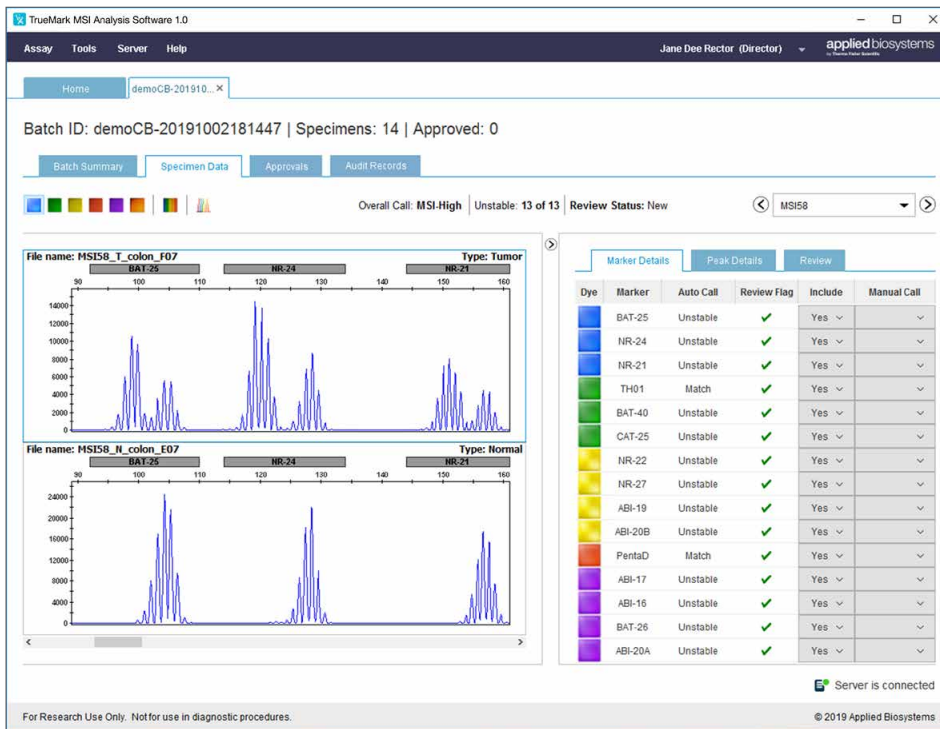


Figure 2. TrueMark MSI Analysis Software offers automated calling. Custom algorithms analyze the MSI status and return an overall call that considers all loci. The status at each locus can be examined and modified manually, if needed.

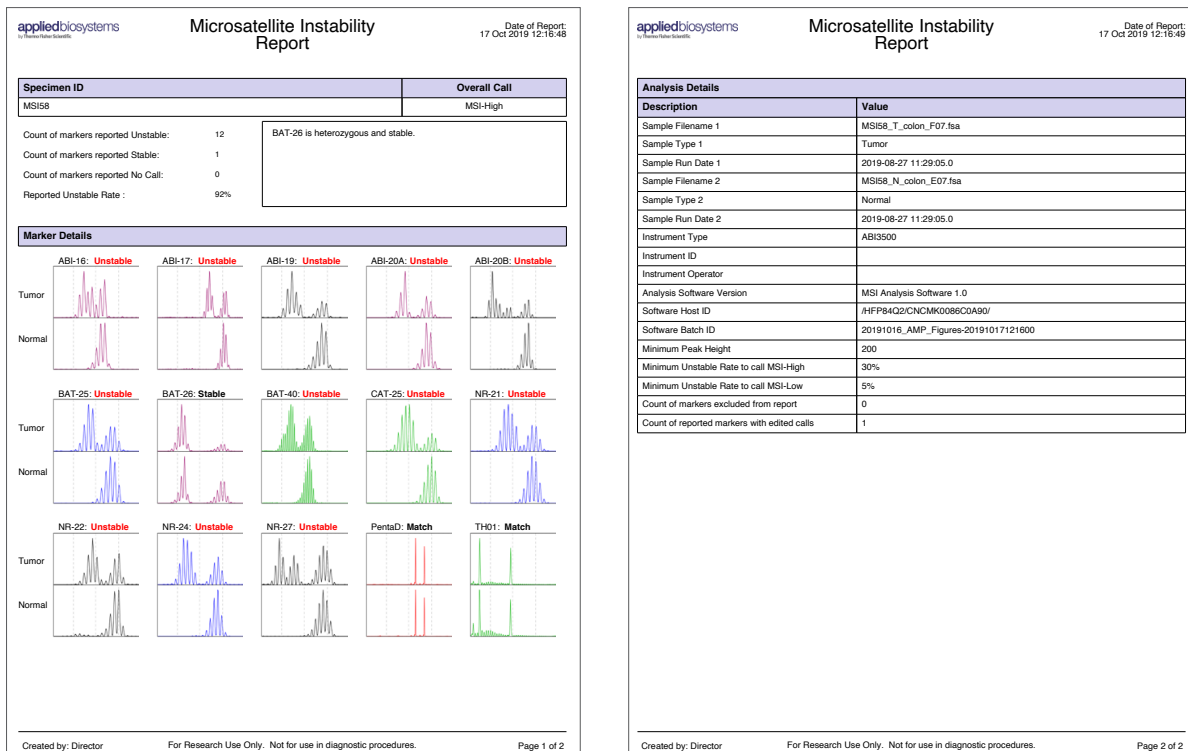


Figure 3. Example report from TrueMark MSI Analysis Software. Results are summarized in an easy-to-interpret manner.

## Ordering information

Product	Cat. No.
TrueMark MSI Assay	A45295
TrueMark MSI Analysis Software	Download at <a href="https://www.thermofisher.com/msisoftware">thermofisher.com/msisoftware</a>

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