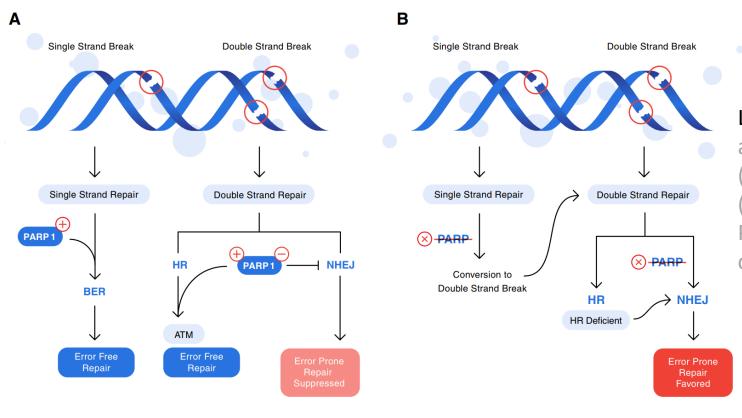
Oncomine™ BRCA Research Assay

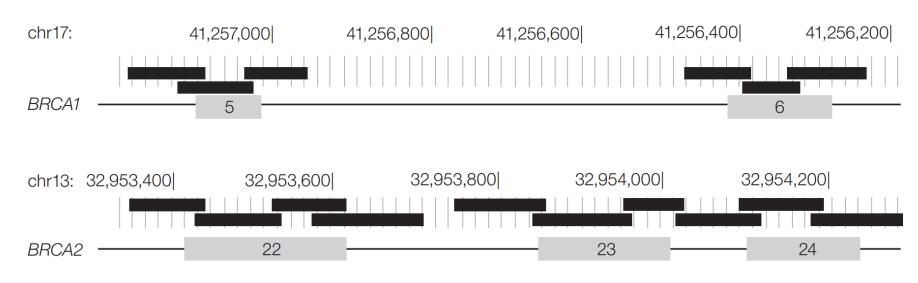
Poly-(ADP-ribose) polymerase (PARP) maintains genomic integrity by supporting single strand (SS) and double strand (DS) DNA break repair



LYNPARZA® (olaparib) is a medication that has been approved by both the European Medicines Agency (EMA) and the U.S. Food and Drug Administration (FDA). Olaparib is a targeted therapy known as a PARP inhibitor, and it is used to treat certain types of cancer, particularly ovarian and breast cancers.

The Oncomine *BRCA* Research Assay covers 100% of the coding sequences of *BRCA1/2*, including all splice and acceptor sites, with an average extension of 63 bp into adjoining introns.

The recommended input is 20 ng of DNA extracted from either FFPE or blood samples.



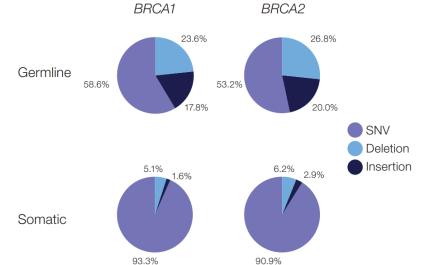


Table 8. Distribution of variant types, including indels associated with HP sequence ≥5, in TCGA somatic mutation data.

	BRCA2	(combined)
263	431	694
314	689	1,003
293 (93.3%)	626 (90.9%)	919 (91.6%)
21 (6.7%)	63 (9.1%)	84 (8.3%)
2 (0.64%)	22 (3.2%)	24 (2.4%)
	314 293 (93.3%) 21 (6.7%)	263 431 314 689 293 (93.3%) 626 (90.9%) 21 (6.7%) 63 (9.1%)



Ion PGM Dx System performance specifications

Ion 318 Dx Chip				
Output [†]	600 Mb-1 Gb (200-base)			
Reads	4–5.5 million			
Run time	4.4 hr (200-base)			



Table 1. Library preparation, template preparation, and sequencing workflows.

Sample type	Library preparation	Library multiplexing	Template preparation and sequencing	Template multiplexing
Somatic	Ion Chef System	8	Ion Chef System, Ion PGM System, Ion 318 Chip	One 8-plex library per chip
			Ion Chef System, Ion S5 System, Ion 530 Chip	Four 8-plex libraries per chip
Somatic Manual	Manage	8	Ion OneTouch 2 System, Ion PGM System, Ion 318 Chip	One 8-plex library per chip
	Ivianuai		Ion Chef System, Ion S5 System, Ion 530 Chip	Four 8-plex libraries per chip
Germline	Ion Chef System	8	Ion Chef System, Ion PGM System, Ion 318 Chip	Four 8-plex libraries per chip
			Ion Chef System, Ion S5 System, Ion 530 Chip	
Germline	Manual 32	00	Ion OneTouch 2 System, Ion PGM System, Ion 318 Chip	One 32-plex library per chip
		32	Ion Chef System, Ion S5 System, Ion 530 Chip	

Workflow for Oncomine BRCA Research Assay

- Extract DNA from FFPE Ovarian Carcinomas
- DNA Library Preparation
- Sequencing on The Ion PGM System
- Analysing data by Torrent Suite Software

DNA Library Preparation

