

# Seraseq® Endometrial Cancer DNA Mix

Reference material for NGS-based Endometrial Cancer assay development, validation and routine QC

## INTRODUCTION

Endometrial cancer, a malignancy of the uterine lining, is the sixth most common cancer in women worldwide. It is one of the few cancers with rising mortality rates, primarily driven by higher incidence of high-risk subtypes, lifestyle changes, and aging population. Current clinical practice is shifting from traditional histopathological classification towards molecular profiling to guide prognosis, treatment decisions, and clinical trial eligibility. Guidelines from international organizations like NCCN, ESGO, ESMO and WHO, recommend molecular stratification as part of standard of care for patients with endometrial cancer.

The molecular framework for endometrial cancer is divided into four major subtypes as defined by The Cancer Genome Atlas (TCGA): POLE-mutated, mismatch repair deficient (MMRd), p53-abnormal (copy number high) and NSMP (no specific molecular profile, copy number low). As genomic profiling becomes increasingly central to clinical decision-making, there is a growing need for well-characterized, highly multiplexed reference material to support confident detection of mutations across these key subtypes.

To support this need, LGC has developed the Seraseq® Endometrial Cancer DNA mix, containing a defined set of clinically relevant mutations spanning the major molecular subtypes including POLE, TP53, PTEN, PIK3CA, and MMR genes. This multiplexed reference material enables labs to develop, validate, and monitor assay performance, ensuring reliable and consistent variant detection, ultimately supporting high quality genomic testing outcomes.

## FEATURES AND BENEFITS

- 32 variants in 16 genes, covering hotspot mutations from the four major molecular subtypes, including 11 pathogenic POLE variants
- All variants are targeted at a VAF of 10% and CNV at +3 copies
- Mutation targets quantified by highly sensitive digital PCR and orthogonally validated by NGS
- Blended with well-characterized GM24385 human genomic DNA as background wildtype material
- Manufactured under GMP-compliance and ISO 13485-certified facilities

## ORDERING INFORMATION

Material #	Product	Format	Target Concentration*	Fill Volume	Total Mass
0710-4125	Seraseq® Endometrial Cancer DNA Mix	gDNA	15 ng/μL	20 μL	300 ng

\*target concentrations are based on Qubit dsDNA BR assay

## HIGHLIGHTS

High quality multiplexed reference material containing 32 clinically relevant variants in 16 genes

Variant coverage across all major molecular subtypes: POLE, MMRd, p53-abnormal and NSMP

Manufactured under cGMP compliant ISO certified laboratories

## MUTATIONS PRESENT IN THE SERASEQ® ENDOMETRIAL CANCER DNA MIX

GENE ID	NUCLEOTIDE CHANGE	TRANSCRIPT	VARIANT TYPE
POLE	c.857C>G	NM_006231.4	SNV
POLE	c.1231G>C	NM_006231.4	SNV
POLE	c.890C>T	NM_006231.4	SNV
POLE	c.1366G>C	NM_006231.4	SNV
POLE	c.1376C>T	NM_006231.4	SNV
POLE	c.1100T>C	NM_006231.4	SNV
POLE	c.1270C>A	NM_006231.4	SNV
POLE	c.884T>G	NM_006231.4	SNV
POLE	c.1102G>T	NM_006231.4	SNV
POLE	c.1307C>G	NM_006231.4	SNV
POLE	c.1331T>A	NM_006231.4	SNV
MSH2	c.942+20_942+29delAAAAAAAAA	NM_000251.3	Deletion
MLH1	c.1852_1854del	NM_000249.4	Deletion
MSH2	c.942+3A>T	NM_000251.3	SNV
MSH6	c.3261dup	NM_000179.3	Duplication
PMS2	c.861_864del	NM_000535.7	Deletion
TP53	c.743G > A	NM_000546.6	SNV
TP53	c.524G>A	NM_000546.6	SNV
TP53	c.818G>A	NM_000546.6	SNV
TP53	c.723del	NM_000546.6	Deletion
PTEN	c.389G>A	NM_000314.8	SNV
PIK3CA	c.3140A>G	NM_006218.4	SNV
PIK3CA	c.3203dup	NM_006218.4	Insertion
KRAS	c.35G>A	NM_004985.5	SNV
CTNNB1	c.98C>T	NM_001904.4	SNV

## MUTATIONS PRESENT IN THE SERASEQ® ENDOMETRIAL CANCER DNA MIX (CONTINUED)

GENE ID	NUCLEOTIDE CHANGE	TRANSCRIPT	VARIANT TYPE
CTNNB1	c.121A>G	NM_001904.4	SNV
AKT1	c.49G>A	NM_005163.2	SNV
POLD	c.1433G>A	NM_002691.4	SNV
ARID1A	c.5548del	NM_006015.6	Deletion
FBXW7	c.1513C>T	NM_001349798.2	SNV
PPP2R1A	c.536C>G	NM_014225.6	SNV
ERBB2	Amplification	NM_004448.4	CNV

Note: The above list does not include variants present in the GM24385 background.

To place an order, please contact us at +1.508.244.6400 and +1 800.676.1881 or email [CDx-CustomerService@lgcgroup.com](mailto:CDx-CustomerService@lgcgroup.com).

### ABOUT US

SeraCare offers a comprehensive portfolio of reference materials for oncology and reproductive health, designed and manufactured to meet the precision demanded by NGS assays. The portfolio includes high quality ground-truth RNA, ctDNA and genomic DNA-based reference materials that are NGS platform agnostic for tumor profiling, immuno-oncology, liquid biopsy, NIPT and germline cancer assay workflows. For more information visit [seracare.com](http://seracare.com)

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