

# OncoSpan

The World's Largest Oncology Reference Standard

## Overview

OncoSpan is Horizon's largest Reference Standard, which features 386 variants across 152 key cancer genes. All our Reference Standards are cell line-derived for the closest representation of your patient sample. You also have access to batch-specific NGS data for all variants, providing you with a high-quality truth set to give you consistency, confidence and control over your assays.

OncoSpan is supported by a bespoke quality control platform, OncoMatic, for comprehensive and easy assay validation of oncology gene panels and exome sequencing assays.

## Features

- World's largest oncology Reference Standard
- Cell line-derived for the closest representation of your patient sample
- High coverage across the top NGS gene panels, cross-checked against amplicon design
- Batch-specific VCF file included with every purchase
- Supported by bespoke NGS quality control software OncoMatic, for faster assay validation
- ddPCR validation for 25 variants with defined allelic frequencies
- 195 variants have a COSMIC ID

## Genes and Variants

- 152 genes
- 386 variants
- INDELS: 24 deletions, 6 insertions (ranging from 2 to 16 base pairs)

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**horizon**

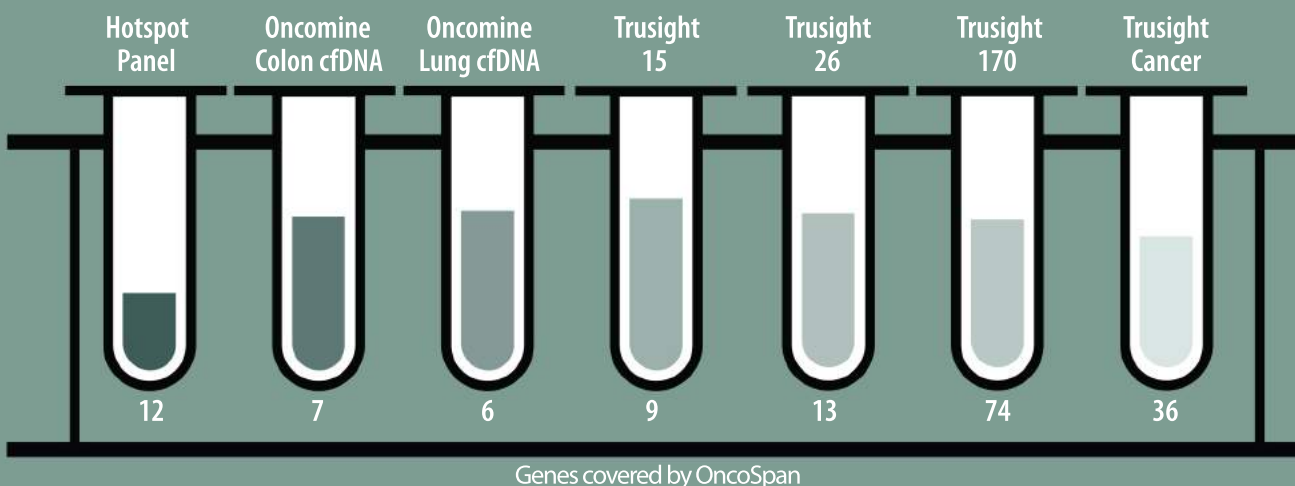
Gene List

OncoSpan covers 152 genes

ABL1	AKT1	AKT2	ALK	APC	AR	ARID1A	ATR	ATRX	AXL	BARD1
BCL6	BLM	BMP1A	BRAF	BRCA1	BRCA2	BTK	BUB1B	CARD11	CCND1	CCND3
CCNE1	CD79B	CDH1	CDK12	CDK4	CEP57	CFH	CREBBP	CSF1R	CTNNA1	DDR2
DIS3L2	DNMT3A	EGFR	EML4	EP300	EPCAM	ERBB2	ERBB3	ERCC1	ERCC2	ERCC4
ERCC5	ERG	ETS1	ETV4	EWSR1	EXT1	FANCA	FANCD2	FANCE	FANCG	FANCI
FANCM	FBXW7	FGF10	FGF2	FGF3	FGF6	FGFR1	FGFR3	FLCN	FLI1	FLT1
FLT3	FZR1	GATA2	GATA3	GEN1	GNA11	GNAS	HNF1A	HRAS	IDH1	IDH2
JAK1	JAK2	JAK3	KDR	KIT	KRAS	LDLR	MAG1	MAP2K1	MAP2K2	MAX
MDM4	MED12	MET	MLH1	MLL3	MMAB	MRE11	MSH2	MSH3	MSH6	MTOR
NBN	NF1	NFE2L2	NOTCH1	NOTCH2	NOTCH3	NRAS	NRG1	NTRK1	NTRK3	PDGFRA
PDGFRB	PIK3CA	PIK3CD	PIK3CG	PIK3R1	PMS2	PPARG	PPP2R2A	PRKAR1A	PROC	PTCH1
PTPN11	RAD51B	RAD54L	RAF1	RB1	RBM45	RECQL4	RET	RHBDF2	ROS1	RPS6KB1
SDHB	SF3B1	SF3B2	SLTM	SLX4	SMARCB1	SMO	SMOX	STK11	TERT	TET2
TFRC	TP53	TP53BP1	TSC1	TSC2	WRN	XPA	XPC	ZNF395		

OncoSpan is designed to work alongside the top NGS gene panels, to streamline oncology genetics. All our variants have been cross-checked against the amplicon design in these popular gene panels from Thermo Fisher Scientific and Illumina.

	Thermo Fisher Scientific			Illumina			
	Cancer Hotspot Panel (v2)	Oncomine Colon cfDNA	Oncomine Lung cfDNA	Trusight Tumor 15	Trusight Tumor 26	Trusight Tumor 170	Trusight Cancer
Genes in Panels	50	14	11	15	26	170	94
Genes covered by OncoSpan	12	7	6	9	13	74	36
Coverage in %	24%	50%	55%	60%	50%	44%	38%



## OncoMatic – our bespoke quality control platform

OncoSpan is supported by our bespoke online quality control tool – OncoMatic.

This online tool allows you to:

- Upload your OncoSpan NGS data to check your assay performance
- Browse the variants (truth set)
- Download batch-specific OncoSpan NGS data

When you upload your own data, OncoMatic will automatically calculate your key metrics to assess sequencing quality and performance, such as:

- Error rates
- Precision
- Sensitivity

OncoMatic also tracks Reference Standard performance over time, making routine QC management more efficient and manageable during lab audits – giving you complete control of your data.

You will get access to this platform as soon as you have purchased your first OncoSpan product. You will receive an email with a link to the online tool and instructions on how to create a login.

A user guide is available and the OncoMatic team are on-hand to answer any questions you might have.

## Product Characterisation

High coverage (500x) exome sequencing is performed on every batch of OncoSpan, providing accurate characterisation of the background genome.

Agilent SureSelectXT Human All Exon V6 with Illumina sequencing is performed under strict quality controls (ISO 9001, ISO 17025) to provide you with an accurate and reliable NGS data set for your product.

Additionally, 25 variants are orthogonally validated by ddPCR, with allelic frequencies from 1% to 60%. This not only supports the NGS data set, but gives you high quality allelic frequencies for these key variants.

## Product Specification

Catalogue Number	HD827
Format	gDNA
Amount of DNA	1µg
Volume	20µl
Concentration	50ng/µl
Quality Certificates	ISO 9001, ISO 13485

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