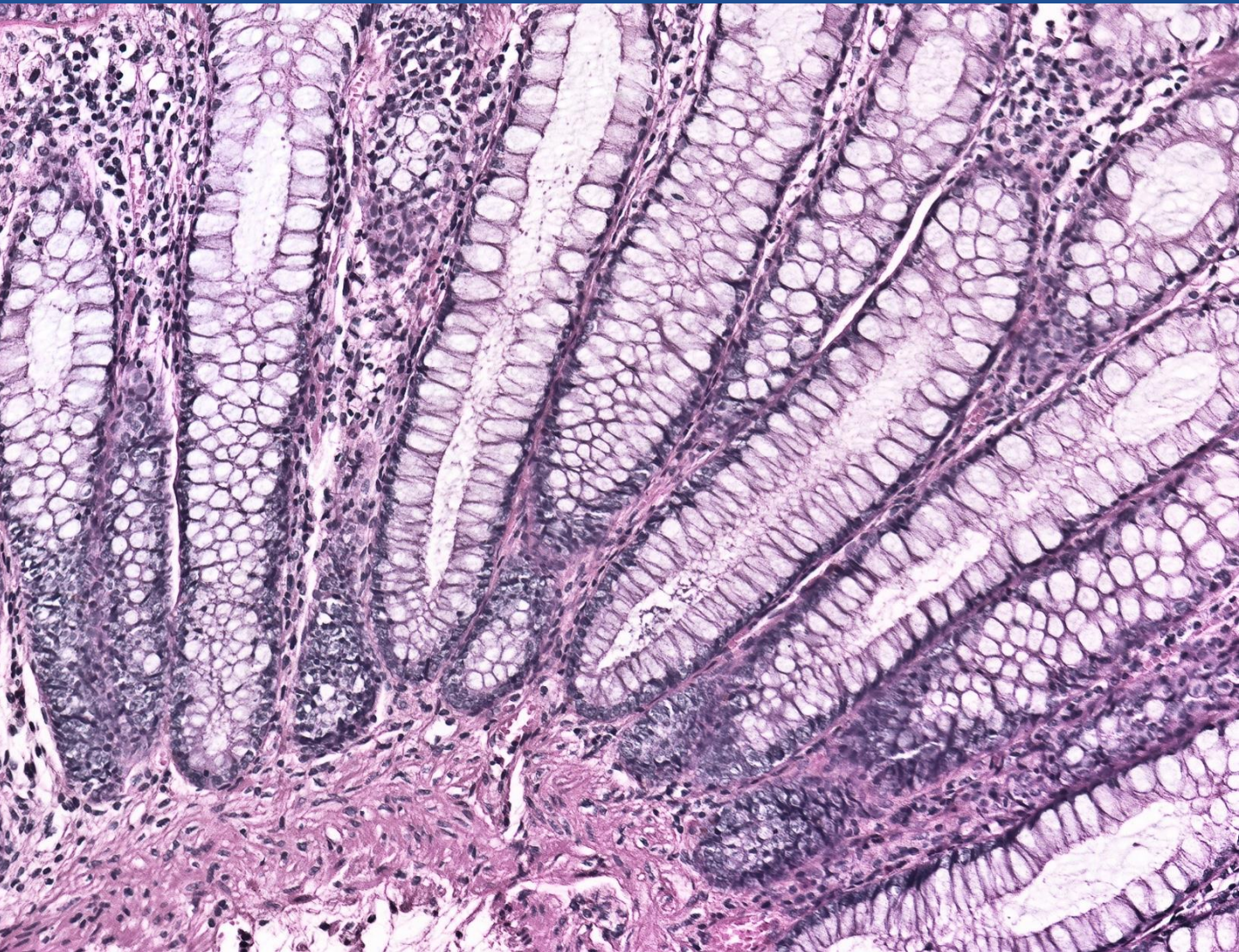


amsbio

FFPE Cell Line Controls



The Need for High Quality Biospecimens

The need for high quality specimens for biomarker & drug discovery, translational research, and diagnostics

- **Issues with traditional cell or tissue based control specimens** – Intra specimen variation, lot-to-lot variations, Inconsistent biomolecule quality
- **For research** – Unreliable test specimens can lead to miss-interpretation of results
- **For diagnostics** – Without control material, variations in reagents, instruments, operators, and environment may lead to misdiagnosis

FFPE Cell Pellets

- Bring the most consistent control materials for research and clinical testing.
- Provide the most flexible cell based products for research applications.

FFPE Cell Pellets

FFPE Cell Pellets

- Traditional FFPE cell pellets are of poor qualities and expensive.
- For the first time, AMSBIO brings highly consistent cell products with affordable prices for routine research and clinical use

VERSATILITY

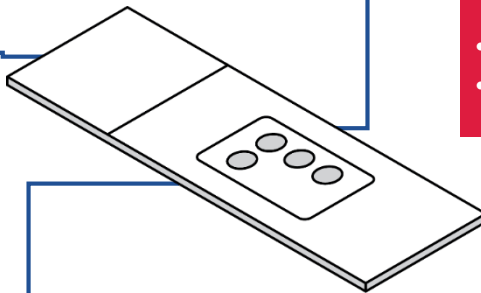
- Custom cell lines
- Custom fixation protocols
- Custom cell densities
- Mixed cell lines blocks
- Custom cell pellet arrays

QUALITY

- Strictly controlled fixation
- Homogeneous distribution
- Intra-block consistency
- Lot-to-lot consistency

ECONOMICAL

- 60-90% lower price than any other similar products in the market



Quality Control

High Consistency and Homogeneity

Strictly controlled fixation

- Fixation temperature: $\pm 1^{\circ}\text{C}$
- Fixation time: ± 0.2 hr

Proprietary manufacturing process

- Cell number per section variation $< 5\%$

High density but well-separated cells

- Clear results visualization
- Enable digital image analysis and statistical analysis

Optimized tissue protocol and storage conditions processing

- Maximise biomolecule stability

Precision sectioning

- Highly experienced histologists
- Well maintained microtomes

Cross-block homogeneity

- $< 5\%$ cell number variation from beginning to the end of each block

A-FLX quality standard

- To produce millions of near identical FFPE cell pellet slides



Section #1

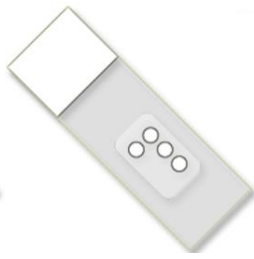
Section #250

Section #500

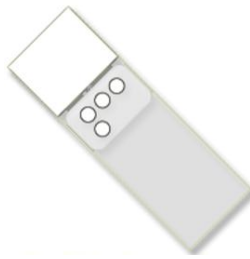
Versatile Formats for Different Application



Single Pellet Slide



Pellet Array Slide

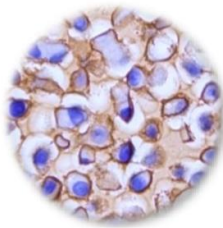


On-Slide-Control Array

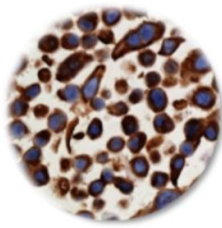


FFPE Scroll

FFPE Slide Based Applications



Immunohistochemistry (IHC)



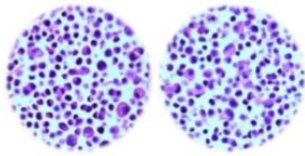
RNA *in situ* hybridization (ISH)

FFPE Scroll Based Applications

- qPCR/RT-qPCR
- Sequencing/Next-Gen Sequencing
- NanoString
- Microarray

Example FFPE Cell Pellet Gallery

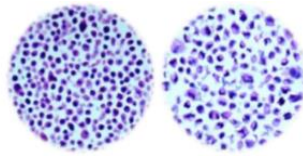
BREAST



SKBR3

MCF7

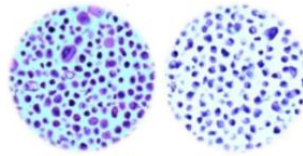
LUNG



A549

HOP92

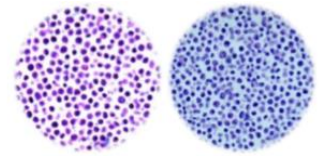
PROSTATE



PC3

DU145

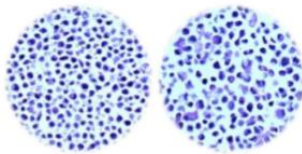
COLON



COLO205

22RV1

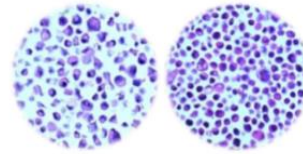
OVARIAN



OVCAR8

IGROV1

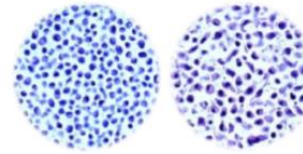
PANCREATIC



PANC1

PSN1

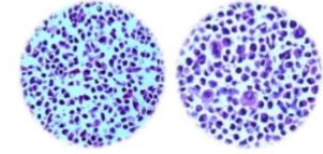
MELANOMA



CHL1

SK-MEL-28

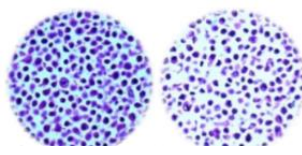
LIVER



HEPG2

HUH7

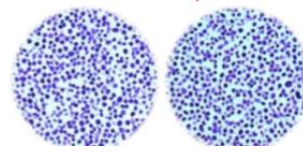
CERVICAL



HELA

CASKI

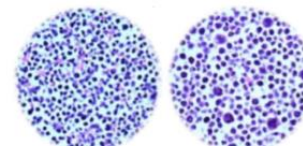
LEUKEMIA



CCRF-CEM

JURKAT

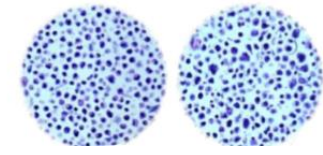
LYMPHOMA



SUDHL6

HUT78

KIDNEY

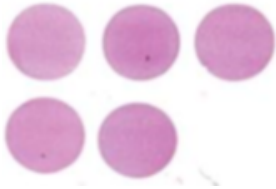


786-0

HEK293

Example Cell Pellet Arrays

BREAST CANCER ARRAY



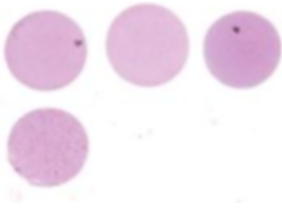
	1	2	3
A	SKBR3	BT474	MCF7
B	MDA-MB-231	MDA-MB-231	

LUNG CANCER ARRAY



	1	2	3
A	A549	HCC78	H1975
B	SKMES1	H1703	H596
C	HOP62	HOP92	

PROSTATE CANCER ARRAY



	1	2	3
A	PC3	DU145	22RV1
B	LNCAP		

COLORECTAL CANCER ARRAY



	1	2	3	4
A	SW620	LS174T	COLO205	HT29
B	HCT116	HCT15		

SKIN CANCER ARRAY



	1	2	3
A	CHL-1	C32	M14
B	SK-MEL-2	SK-MEL-28	

LEUKEMIA AND LYMPHOMA ARRAY



	1	2	3	4
A	JURKAT	CCRF-CEM	K562	RAJI
B	HUT78	SUDHL1	SUDHL4	

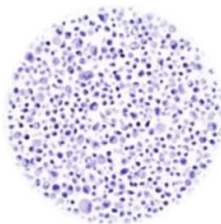
Versatile Customization

Customized Cell Pellet

- Custom fixation
- Live embedded cell pellet
- Custom cell pellet size (3, 5, 7, 10mm diameter)
- Custom cell density (1-90%)
- Custom cell pellet array

Density Customization

HIGH DENSITY



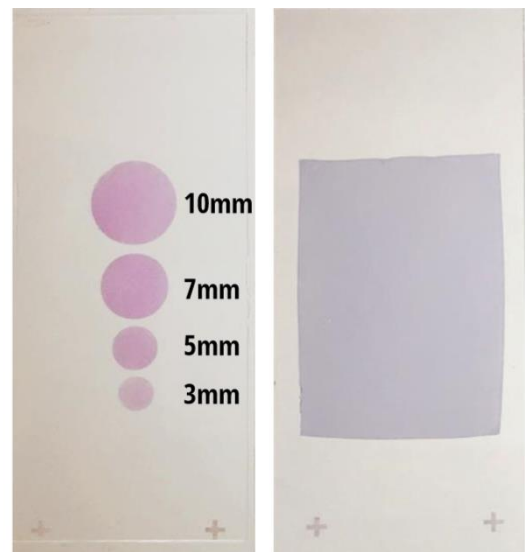
MEDIUM DENSITY



LOW DENSITY



Size and Shape Customization



Versatile Customization

Customized Reference Standard

- Mixed cell lines (1:10,000 to 1:1)
- Custom treated cell lines
- Transfected cell lines
- Mutation panels

Sequencing Verified Mutation Cell Lines

Gene	Mutation	Cell line	Origin	Zygoty
BRAF	V600E	HT144	Melanoma	Homozygous
		SK-MEL-28	Melanoma	Homozygous
EGFR	L858R	H1975	Lung	Heterozygous
	T790M	H1975	Lung	Heterozygous
KRAS	G12V	SW620	Colon	Homozygous
	G12S	A549	Lung	Homozygous
	G12R	PSN1	Pancreatic	Homozygous
	G12C	SW1573	Lung	Homozygous
	G12D	HCT-15	Colon	Heterozygous
PIK3CA	H1047R	HCT116	Colon	Heterozygous
	E545K	MCF7	Breast	Heterozygous
		HCT15	Colon	Heterozygous
		H596	Lung	Heterozygous



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V2



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