



Cat No: LVC1261 – Intrahepatic cholangiocarcinoma paired normal liver tissue array

Lot#	Cores	Size	Cut	Format	QA/QC	
LVC126101	126	1.5mm	4um	9X14	H&E, IHC anti-Cytokeratin	

Recommended applications: For Research use only. RNA or protein cancer verse normal tissue profiling in cholangiocarcinoma using IHC or ISH and for antibody characterization.

Description: Cholangiocarcinoma/paired normal liver tissue array, set 1, 42 cases, 126 cores, one normal adjacent normal liver tissue paired with two tumor tissue cores from each patient, with grading and TNM staging data.

All the tissues were from surgical resection. They were fixed in 10% neutral buffered formalin for 24 hours and processed using identical SOPs. Sections were picked onto Superfrost Plus or APES coated Superfrost slides. They can be stored for use at 4C for up to six months from the date of shipment. **There may be 5 to 10% of tissue core loss.**

Array Position	Sex	Age	Anatomic site	Pathology	Grade	Stage
A01	M	52	Liver	Cholangiocarcinoma	I	T4N1M0
A02	M	70	Liver	Cholangiocarcinoma	II	T2N0M0
A03	F	72	Liver	Cholangiocarcinoma	I	T2N0M0
A04	F	58	Liver	Cholangiocarcinoma	II	T3N1M0
A05	F	69	Liver	Cholangiocarcinoma	II	T4N1M0
A06	F	54	Liver	Cholangiocarcinoma	III	T2N0M0
A07	F	85	Liver	Cholangiocarcinoma	II	T2N0M0
A08	F	46	Liver	Cholangiocarcinoma	II	T2N0M0
A09	F	54	Liver	Cholangiocarcinoma	II	T2N0M0
A10	M	57	Liver	Cholangiocarcinoma	II	T2N0M0
A11	F	50	Liver	Cholangiocarcinoma	II	T2N0M0
A12	M	46	Liver	Cholangiocarcinoma	II	T2N0M0
A13	F	39	Liver	Cholangiocarcinoma	II	T2N1M0
A14	F	77	Liver	Cholangiocarcinoma	II	T2N0M0
B01	M	52	Liver	Cholangiocarcinoma	I	T4N1M0
B02	M	70	Liver	Cholangiocarcinoma	II	T2N0M0
B03	F	72	Liver	Cholangiocarcinoma	I	T2N0M0
B04	F	58	Liver	Cholangiocarcinoma	II	T3N1M0
B05	F	69	Liver	Cholangiocarcinoma	II	T4N1M0
B06	F	54	Liver	Cholangiocarcinoma	III	T2N0M0
B07	F	85	Liver	Cholangiocarcinoma	II	T2N0M0
B08	F	46	Liver	Cholangiocarcinoma	II	T2N0M0
B09	F	54	Liver	Cholangiocarcinoma	II	T2N0M0
B10	M	57	Liver	Cholangiocarcinoma	II	T2N0M0
B11	F	50	Liver	Cholangiocarcinoma	II	T2N0M0
B12	M	46	Liver	Cholangiocarcinoma	II	T2N0M0
B13	F	39	Liver	Cholangiocarcinoma	II	T2N1M0
B14	F	77	Liver	Cholangiocarcinoma	II	T2N0M0
C01	M	52	Liver	Uninvolved liver tissue of A1, B1	null	null
C02	M	70	Liver	Uninvolved liver tissue of A2, B2	null	null
C03	F	72	Liver	Uninvolved liver tissue of A3, B3	null	null
C04	F	58	Liver	Uninvolved liver tissue of A4, B4	null	null
C05	F	69	Liver	Uninvolved liver tissue of A5, B5	null	null
C06	F	54	Liver	Uninvolved liver tissue of A6, B6	null	null
C07	F	85	Liver	Uninvolved liver tissue of A7, B7	null	null
C08	F	46	Liver	Uninvolved liver tissue of A8, B8	null	null
C09	F	54	Liver	Uninvolved liver tissue of A9, B9	null	null



Advancing Biomedical Science Through Tissue Arrays

C10	M	57	Liver	Uninvolved liver tissue of A10, B10	null	null
C11	F	50	Liver	Uninvolved liver tissue of A11, B11	null	null
C12	M	46	Liver	Uninvolved liver tissue of A12, B12	null	null
C13	F	39	Liver	Uninvolved liver tissue of A13, B13	null	null
C14	F	77	Liver	Uninvolved liver tissue of A14, B14	null	null
D01	F	66	Liver	Cholangiocarcinoma	II	T3N1M0
D02	M	48	Liver	Cholangiocarcinoma	II	T2N0M0
D03	F	45	Liver	Cholangiocarcinoma	II	T4N0M1
D04	F	64	Liver	Cholangiocarcinoma	II	T3N1M0
D05	F	68	Liver	Cholangiocarcinoma	II	T3N0M0
D06	M	56	Liver	Cholangiocarcinoma	II	T3N1M0
D07	M	51	Liver	Cholangiocarcinoma	II	T4N0M0
D08	M	70	Liver	Cholangiocarcinoma	II	T3N0M0
D09	M	41	Liver	Cholangiocarcinoma	II	T3N0M0
D10	F	80	Liver	Cholangiocarcinoma	II	T3N0M0
D11	M	51	Liver	Cholangiocarcinoma	I	T2N0M0
D12	F	60	Liver	Cholangiocarcinoma	II	T2N1M0
D13	M	60	Liver	Cholangiocarcinoma	II	T3N0M0
D14	F	58	Liver	Cholangiocarcinoma	II	T2N0M0
E01	F	66	Liver	Cholangiocarcinoma	II	T3N1M0
E02	M	48	Liver	Cholangiocarcinoma	II	T2N0M0
E03	F	45	Liver	Cholangiocarcinoma	II	T4N0M1
E04	F	64	Liver	Cholangiocarcinoma	II	T3N1M0
E05	F	68	Liver	Cholangiocarcinoma	II	T3N0M0
E06	M	56	Liver	Cholangiocarcinoma	II	T3N1M0
E07	M	51	Liver	Cholangiocarcinoma	II	T4N0M0
E08	M	70	Liver	Cholangiocarcinoma	II	T3N0M0
E09	M	41	Liver	Cholangiocarcinoma	II	T3N0M0
E10	F	80	Liver	Cholangiocarcinoma	II	T3N0M0
E11	M	51	Liver	Cholangiocarcinoma	I	T2N0M0
E12	F	60	Liver	Cholangiocarcinoma	II	T2N1M0
E13	M	60	Liver	Cholangiocarcinoma	II	T3N0M0
E14	F	58	Liver	Cholangiocarcinoma	II	T2N0M0
F01	F	66	Liver	Uninvolved liver tissue of D1, E1	null	null
F02	M	48	Liver	Uninvolved liver tissue of D2, E2	null	null
F03	F	45	Liver	Uninvolved liver tissue of D3, E3	null	null
F04	F	64	Liver	Uninvolved liver tissue of D4, E4	null	null
F05	F	68	Liver	Uninvolved liver tissue of D5, E5	null	null
F06	M	56	Liver	Uninvolved liver tissue of D6, E6	null	null
F07	M	51	Liver	Uninvolved liver tissue of D7, E7	null	null
F08	M	70	Liver	Uninvolved liver tissue of D8, E8	null	null
F09	M	41	Liver	Uninvolved liver tissue of D9, E9	null	null
F10	F	80	Liver	Uninvolved liver tissue of D10, E10	null	null
F11	M	51	Liver	Uninvolved liver tissue of D11, E11	null	null
F12	F	60	Liver	Uninvolved liver tissue of D12, E12	null	null
F13	M	60	Liver	Uninvolved liver tissue of D13, E13	null	null
F14	F	58	Liver	Uninvolved liver tissue of D14, E14	null	null
G01	M	80	Liver	Cholangiocarcinoma	III	T2N0M0
G02	M	61	Liver	Cholangiocarcinoma	II~III	T4N0M0
G03	F	62	Liver	Cholangiocarcinoma	II~III	T2N0M0
G04	F	55	Liver	Cholangiocarcinoma	III	T3N0M0
G05	M	44	Liver	Cholangiocarcinoma	II~III	T2N0M0
G06	F	59	Liver	Cholangiocarcinoma	II	T2N1M0
G07	M	38	Liver	Cholangiocarcinoma	II	T3N1M0
G08	F	57	Liver	Cholangiocarcinoma	II	T3N0M0
G09	M	40	Liver	Cholangiocarcinoma	II	T3N0M0
G10	M	45	Liver	Cholangiocarcinoma	II~III	T3N0M0
G11	M	35	Liver	Cholangiocarcinoma	II~III	T3N0M0
G12	M	47	Liver	Cholangiocarcinoma	III	T4N0M0
G13	M	38	Liver	Cholangiocarcinoma	III	T2N0M0



Advancing Biomedical Science Through Tissue Arrays

G14	M	41	Liver	Cholangiocarcinoma	III	T3N0M0
H01	M	80	Liver	Cholangiocarcinoma	III	T2N0M0
H02	M	61	Liver	Cholangiocarcinoma	II~III	T4N0M0
H03	F	62	Liver	Cholangiocarcinoma	II~III	T2N0M0
H04	F	55	Liver	Cholangiocarcinoma	III	T3N0M0
H05	M	44	Liver	Cholangiocarcinoma	II~III	T2N0M0
H06	F	59	Liver	Cholangiocarcinoma	II	T2N1M0
H07	M	38	Liver	Cholangiocarcinoma	II	T3N1M0
H08	F	57	Liver	Cholangiocarcinoma	II	T3N0M0
H09	M	40	Liver	Cholangiocarcinoma	II	T3N0M0
H10	M	45	Liver	Cholangiocarcinoma	II~III	T3N0M0
H11	M	35	Liver	Cholangiocarcinoma	II~III	T3N0M0
H12	M	47	Liver	Cholangiocarcinoma	III	T4N0M0
H13	M	38	Liver	Cholangiocarcinoma	III	T2N0M0
H14	M	41	Liver	Cholangiocarcinoma	III	T3N0M0
I01	M	80	Liver	Uninvolved liver tissue of G1, H1	null	null
I02	M	61	Liver	Uninvolved liver tissue of G2, H2	null	null
I03	F	62	Liver	Uninvolved liver tissue of G3, H3	null	null
I04	F	55	Liver	Uninvolved liver tissue of G4, H4	null	null
I05	M	44	Liver	Uninvolved liver tissue of G5, H5	null	null
I06	F	59	Liver	Uninvolved liver tissue of G6, H6	null	null
I07	M	38	Liver	Uninvolved liver tissue of G7, H7	null	null
I08	F	57	Liver	Uninvolved liver tissue of G8, H8	null	null
I09	M	40	Liver	Uninvolved liver tissue of G9, H9	null	null
I10	M	45	Liver	Uninvolved liver tissue of G10, H10	null	null
I11	M	35	Liver	Uninvolved liver tissue of G11, H11	null	null
I12	M	47	Liver	Uninvolved liver tissue of G12, H12	null	null
I13	M	38	Liver	Uninvolved liver tissue of G13, H13	null	null
I14	M	41	Liver	Uninvolved liver tissue of G14, H14	null	null

Notes: Bake at 60C for ~60 minutes before use. If antigen retrieving is needed, it is important to avoid **direct-boiling and high pH or high strength** antigen retrieving buffer.

Certified by: Langxing Pan, M.D.

TNM Classification: Tumors of the liver and intrahepatic bile ducts TNM

T Primary Tumor

TX Primary tumor cannot be assessed

T0 No evidence of primary tumor

T1 Solitary tumor 2 cm or less in greatest dimension without vascular invasion

T2 Solitary tumor 2 cm or less in greatest dimension with vascular invasion; or multiple tumors limited to one lobe, none more than 2 cm in greatest dimension without vascular invasion; or solitary tumor more than 2 cm in greatest dimension without vascular invasion.

T3 Solitary tumor more than 2 cm in greatest dimension with vascular invasion; or multiple tumors limited to one lobe, none more than 2 cm in greatest dimension with vascular invasion; or multiple tumors limited to one lobe, any more than 2 cm in greatest dimension with or without vascular invasion.

T4 Multiple tumors in more than one lobe; or tumor(s) involve(s) a major branch of the portal or hepatic vein(s); or tumor(s) with direct invasion of adjacent organs other than gallbladder; or tumor(s) with perforation of visceral peritoneum.



- N** – Regional Lymph Nodes
- NX** Regional lymph nodes cannot be assessed
- N0** No regional lymph node metastasis
- N1** Regional lymph node metastasis
- M** – Distant Metastasis
- MX** Distant metastasis cannot be assessed
- M0** No distant metastasis
- M1** Distant metastasis

Stage Grouping

- Stage I T1 N0 M0
- Stage II T2 N0 M0
- Stage IIIA T3 N0 M0
- Stage IIIB
 - T1 N1 M0
 - T2 N1 M0
 - T3 N1 M0
- Stage IVA T4 Any N M0
- Stage IVB Any T Any N M1

TNM classification of malignant tumours, Fifth Edition (1997)