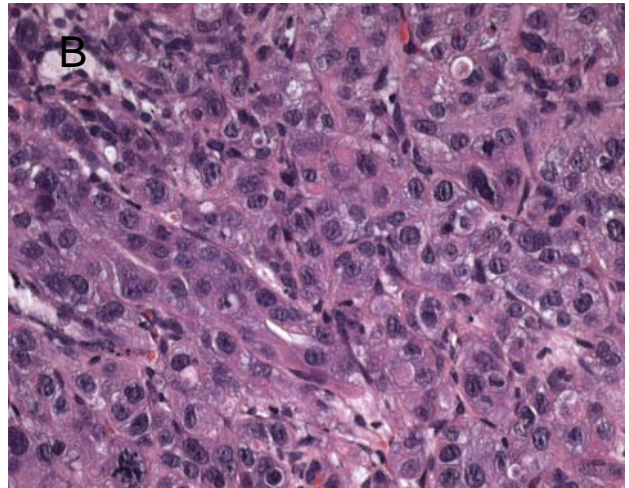
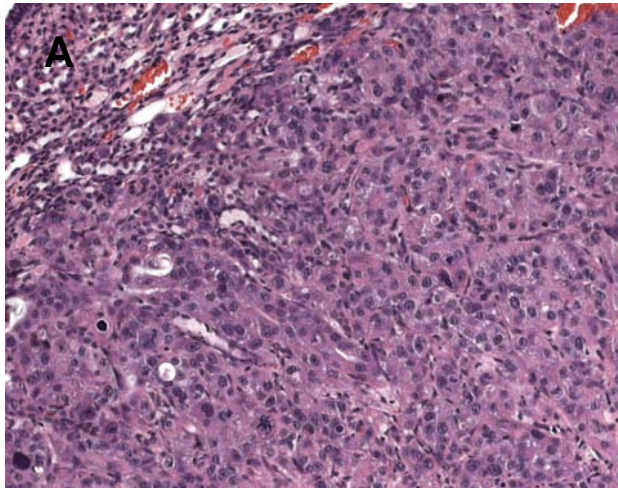
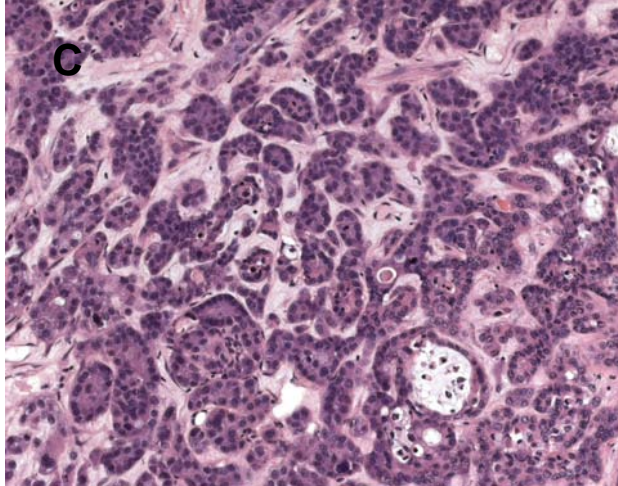


# LTL-618 datasheet

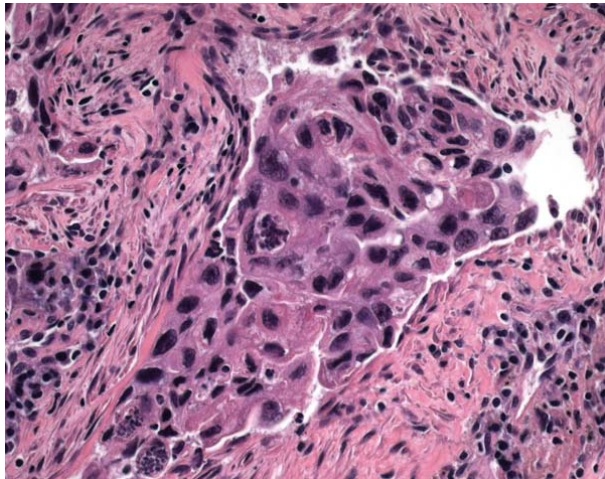
<b>Origin</b>	Primary human lung cancer	<b>Histopathology</b>	Adenocarcinoma
<b>Year of establishment</b>	2006	<b>Doubling time</b>	6 days (sub-renal)
<b>Local invasion</b>	Yes	<b>Metastasis</b>	No
<b>Drug sensitivity</b>	Cisplatin 2.5 mg/kg + Vinorelbine 5 mg/kg, q7d X 2 (T/C = 7.23%, responder) Cisplatin 2.5 mg/kg + Gemcitabine 120 mg/kg (T/C = 26.96%, partially responder) Cisplatin 2.5 mg/kg alone q7d X 2 (T/C = 86.99%, non-responder) SAHA 100 mg/kg q7d X 2 (T/C = 61.74%, non-responder)		

The LTL-618 was developed from a patient's primary lung cancer (Adenocarcinoma, Stage T2N0M0). Histopathologically, it closely resembles the patient's tumor (Figs 1, 2). When grafted under the renal capsules of SCID mice, the LTL-618 shows local invasion into adjacent host kidney parenchyma. No metastasis was observed.





**Fig. 1. H&E stained LTL-618 tissue sections. (A. x200, B. x400) Majority of the tumor cells grow in cohesive, solid sheets . (C. x200) Focally the tumor cells grow in a glandular pattern.**



**Figure 2. Patient's cancer tissue before grafting.**

Showing a poorly differentiated adenocarcinoma with high nuclear grade.

### Genetic and epigenetic characteristics

The LTL-618 tissue line has been characterized using array CGH and Affymetrix chips. Some of the genes with potential therapeutic application are listed below.

Tissue microarrays containing LTL-618 tissue are available for screening potential molecular targets.

#### LTL-618 gene expression profile

Genes	Expression in LTL- 618	Current stage in drug development
ERCC1	++	Clinical
RRM1	++++	Clinical
PTEN	+++	Clinical
BRCA1	+	Clinical
EGFR	+	Clinical
HER (erb-B)	++	Clinical
KRAS	+++	Clinical
P27	++++	Clinical

MRP2	/	Clinical
FasL	-	Clinical
bTubIII (tubulins)	/	Clinical
VEGFR-1	/	Clinical
VEGFR-2	/	Clinical
VEGFR-3	/	Clinical
PDGFR	+	Clinical
CD117 (cKIT)	/	Clinical
RET	+	Clinical
CSF-1R	/	Clinical
CTLA-4	/	Clinical
CD28	-	Pre-clinical
TLR9	-	Pre-clinical
IGF1R	++++	Pre-clinical
ACVRL1 (ALK1)	++++	Pre-clinical
FAK	/	Pre-clinical
Aurora Kinase (AK)	++++	Pre-clinical
mTOR	/	Pre-clinical
c-Met	/	Pre-clinical
Bcl-2	/	Pre-clinical
COX-2	-	Pre-clinical
PCK	++++	Pre-clinical

## Applications

1. Pre-clinical evaluation of existing and potential anticancer drugs. Examination of drug efficacy on tumor growth, cell death (apoptosis, necrosis), tissue invasion, and angiogenesis.
2. Discovery of potential therapeutic targets and/or biomarkers for drug sensitivity.
3. Study of mechanisms underlying tumor growth and progression.

## References

1. Wang et al., Lab Invest (2005) 85, 1392-1404
2. Cutz et al, Clin. Cancer Res. 12(13): 4043-4054 (2006).
3. Lin et al, Cancer Res. 68 p.4352-4359 (2008)

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