LTL-656 datasheet

Origin	Primary human lung cancer	**Histopathology**	Squamous cell carcinoma
Year of establishment	2006	**Doubling time**	6 days (sub-renal)
Local invasion	Yes	**Metastasis**	No
Drug sensitivity	Not determined		

The LTL-656 was developed from a patient's primary lung cancer (Squamous cell carcinoma. Stage T1N1M0). Histopathologically, it closely resembles the patient's tumor (Figs 1, 2). When grafted under the renal capsules of SCID mice, the LTL-656 shows limited local invasion into adjacent host kidney parenchyma. No metastasis was observed. T

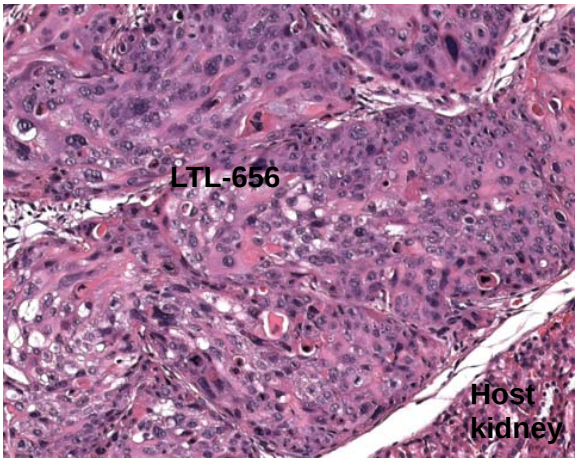

Fig. 1. H&E stained LTL-656 tissue sections.

Showing a moderately differentiated squamous cell carcinoma composed of small nests of tumor cells with histopathological characteristics similar to those of the original patient's cancer (Fig. 2). (x400)

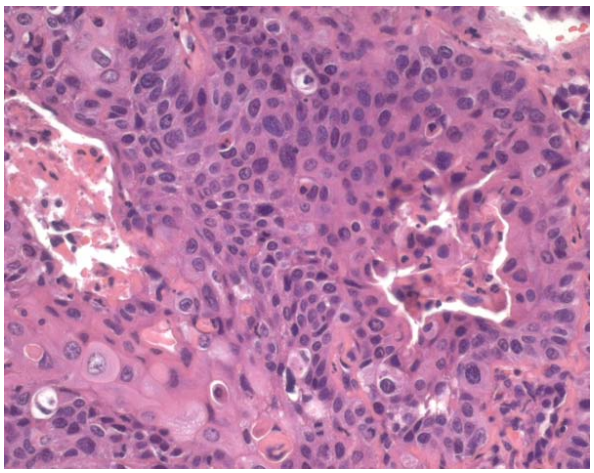

Fig. 2. Patient's cancer tissue before grafting.

The tumor is a moderately differentiated squamous cell carcinoma showing focal keratinization and stratification. (x400)

Genetic and epigenetic characteristics

The LTL-656 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-656 tissue are available for screening potential molecular targets.

LTL-656 gene expression profile

Genes	Expression in LTL-656	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 alpha	++	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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