LTL-370 datasheet

Origin	Human prostate carcinoma	**Histopathology**	Metastatic small cell carcinoma of the prostate
Year of establishment	2010	**Doubling time**	13 days (subrenal capsule graft site)
Local invasion	Yes	**Metastasis**	Yes (microscopic)
Hormone Sensitivity	Androgen-independent		

The LTL-370 tumor tissue line (Fig. 1) was developed from a patient's metastatic prostate carcinoma (small cell carcinoma of the prostate). Histopathologically, it closely resembles the patient's cancer (Fig. 2).When grafted under the renal capsules of NOD-SCID mice, the LTL-370 shows invasion into adjacent host kidney parenchyma and metastases to distant organs.. Growth of the LTL-370 *in vivo* is androgen-independent. Viable tissues of the LTL-370 in early generations have been preserved by cryopreservation (DMSO), and can be readily recovered for grafting.

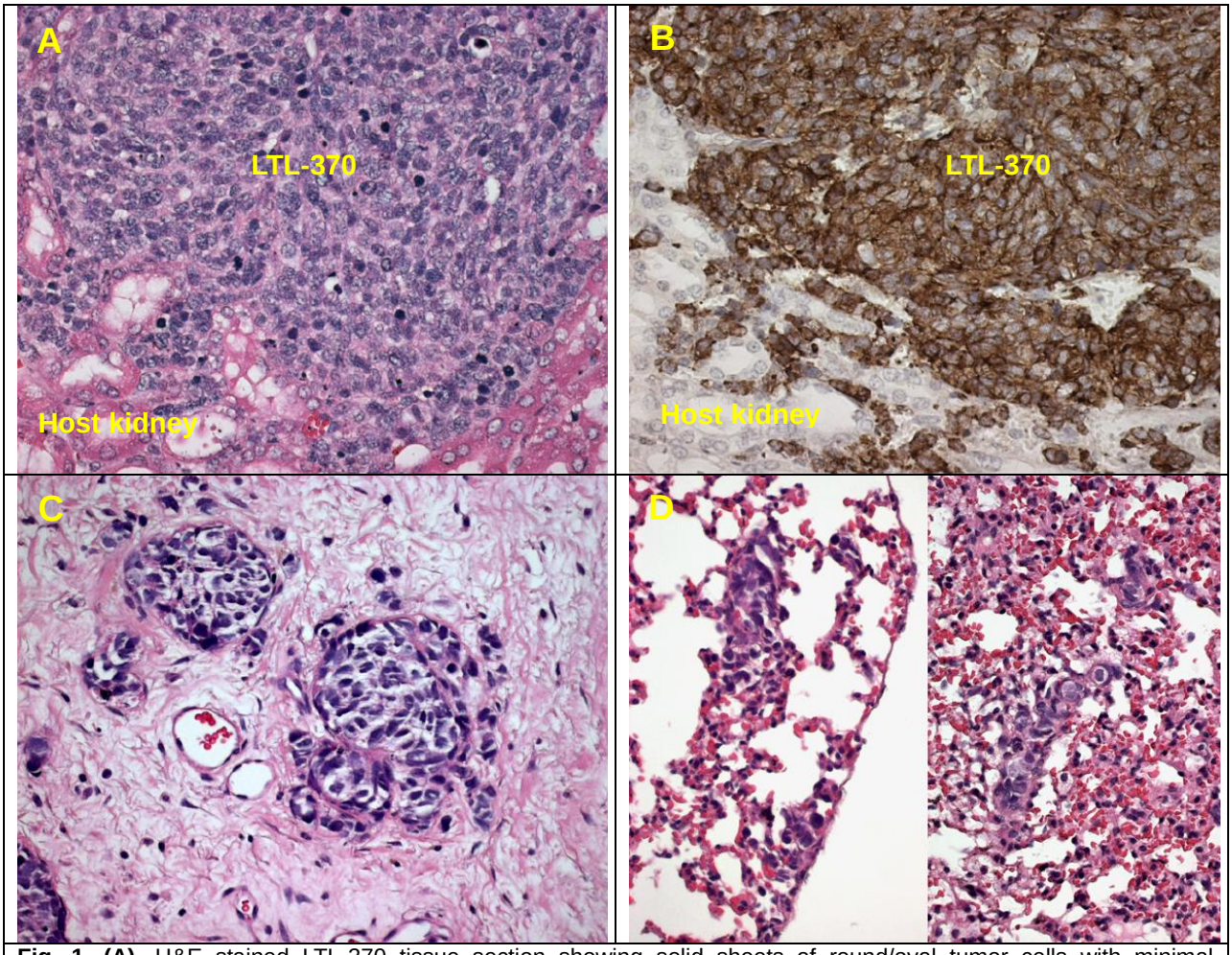

Fig. 1. (A). H&E stained LTL-370 tissue section showing solid sheets of round/oval tumor cells with minimal cytoplasm and frequent mitotic figures, invading host's kidney. **(B).** The tumor cells stain strongly with antibodies to synaptophysin (positive location: cytoplasm). **(C).** The cells show extensive lymphovascular invasion at the sub-renal capsule graft sites. **(D)** Microscopic metastases of the LTL-370 in the host lung. (400x)

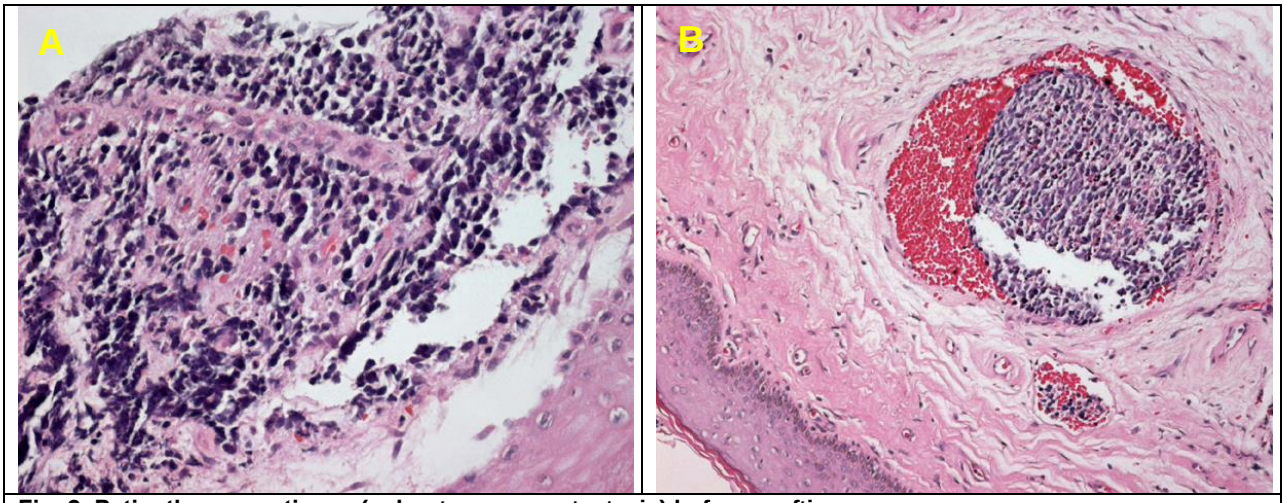

Fig. 2. Patient's cancer tissue (subcutaneous metastasis) before grafting.
H&E stained sections of a penile biopsy revealed small cell carcinoma in the dermis. **(A).** The tumor cells have the usual features of small cell carcinoma including nuclear hyperchromasia, nuclear molding, small punctate nucleoli, and brisk mitotic activity. **(B).** Showing a vessel partially occluded by tumor emboli.

Applications

1. Pre-clinical evaluation of established and potential anticancer drugs. Examination of drug efficacy on tumor growth, cell death (apoptosis, necrosis), tissue invasion, metastasis (in combination with metastatic tumor lines) and angiogenesis.

2. Discovery of potential therapeutic targets and/or biomarkers for drug sensitivity.

3. Study of mechanisms underlying castration resistance, tumor growth, progression and metatasis (in combination with metastatic tumor lines).

Note

The LTL-352 and LTL-370 were derived from the same donor cancer.

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