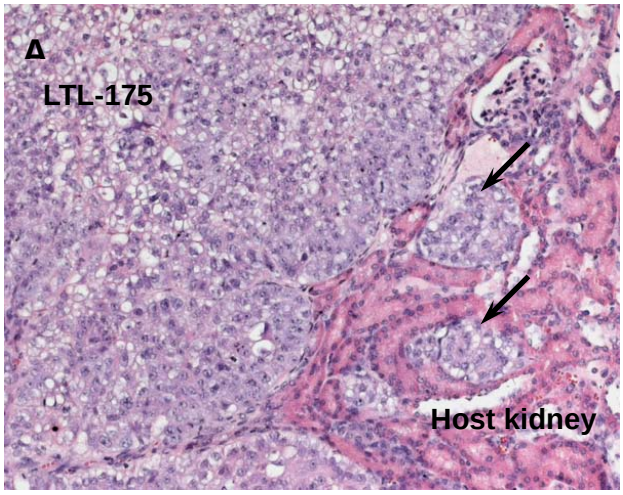
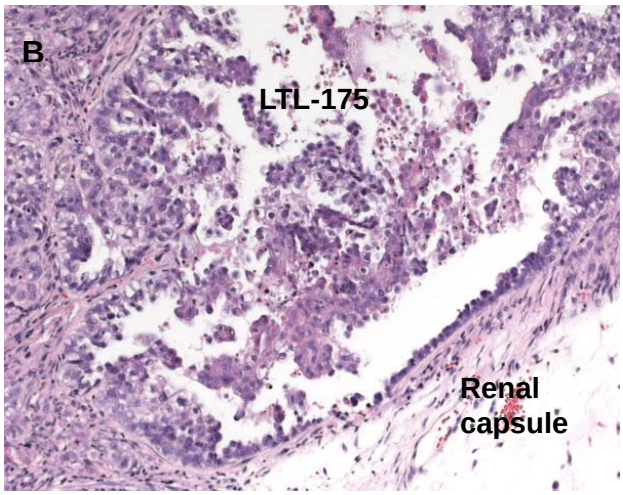
LTL-175 datasheet

Origin	Primary human ovarian cancer	**Histopathology**	Clear cell carcinoma
Year of establishment	2004	**Doubling time**	3 days (sub-renal)
Local invasion	Yes	**Metastasis**	Yes
Drug sensitivity	carboplatin 80 mg/kg + paclitaxol 24mg/kg (T/C = 3.92%, response)		

The LTL-175 was developed from a patient's primary ovarian cancer (grade 3/3 clear cell carcinoma). Histopathologically, it closely resembles the patient's tumor (Figs 1, 2). When grafted under the renal capsules of SCID mice, the LTL-175 shows local invasion into adjacent host kidney parenchyma and metastasis to distant organs (Fig. 3). The LTL-175 also grows well subcutaneously. The LTL-175 has peritoneal cavity spreading ability and produce bloody ascites.





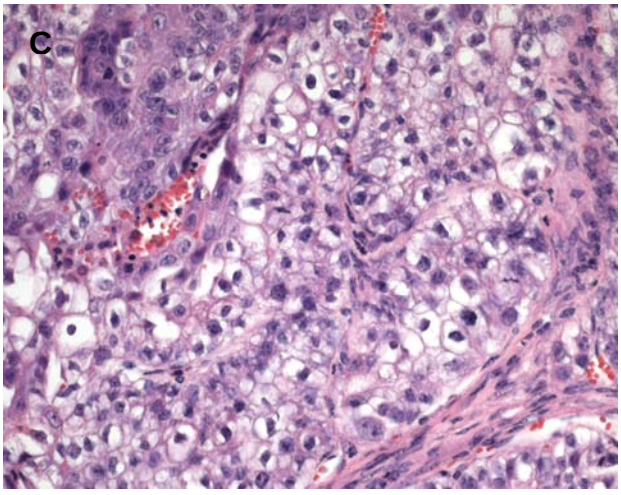


Fig. 1. H&E stained LTL-175 tissue sections.

Showing a clear cell carcinoma, containing both tumor cells and stroma. **(A).** Tumor cells grow in solid sheets, showing local invasion into host kidney (arrows). (200x) **(B).** Tumor cells focally form tubular structure with fine papillae projecting into the lumina (200x). **(C).** At higher magnification, showing tumor cells containing clear cytoplasm and distinct cell membranes. (400x).

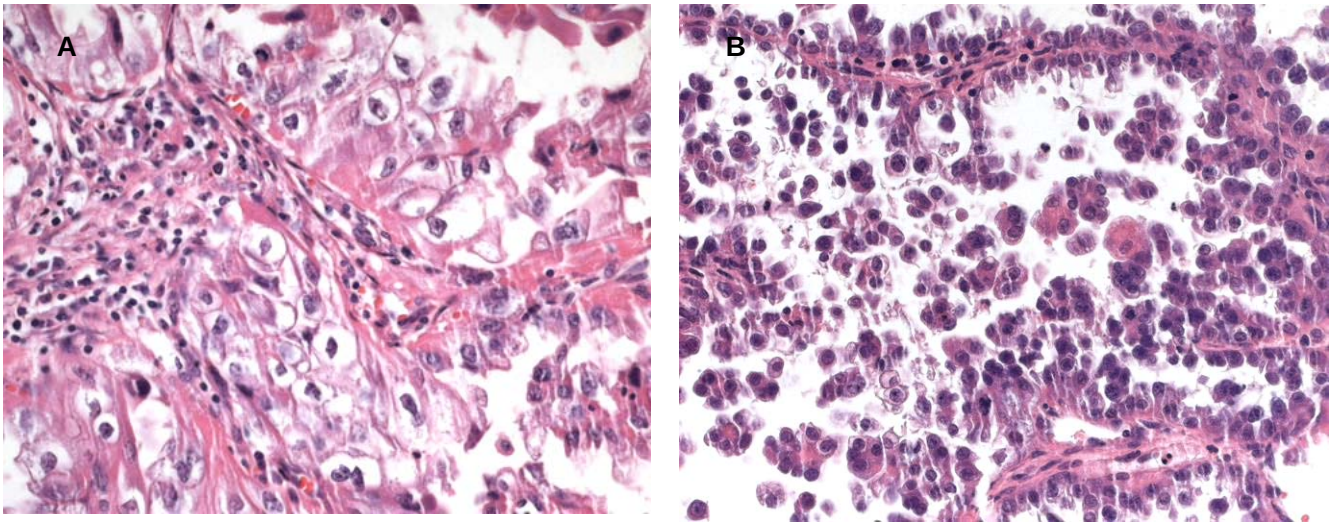


Fig. 2. Patient's cancer tissue before grafting. (A). Clear cell carcinoma composed of large cells with clear cytoplasm and distinct cytomembranes. **(B).** Fine papillae project into the lumina of tubular glands. (x400)

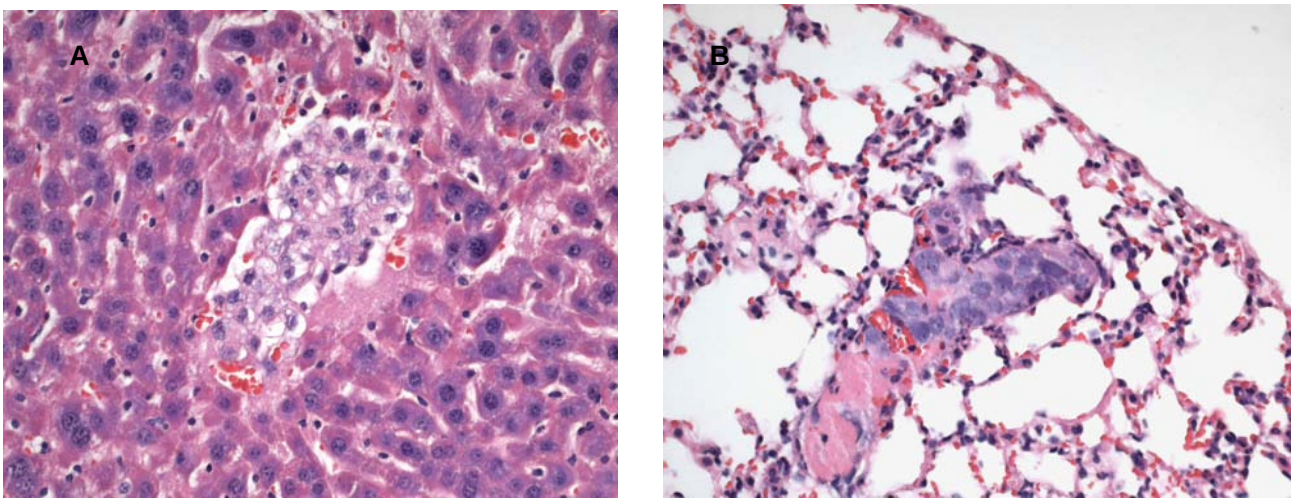


Figure 3. Metastases of Tumor line LTL-175 in host. (A). Liver metastasis. **(B).** Lung metastasis. (x400)

Genetic and epigenetic characteristics

Tumor line tissue (in Tissue Microarrays) for IHC and ISH is in place for screening potential targets upon request.

Applications

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

2. Discovery of potential therapeutic targets and/or biomarkers for drug sensitivity. LTL-175 is sensitive to Sunitinib, an angiogenesis inhibitor.

3. Study of mechanisms underlying tumor growth, progression and metastasis.

References

1. Lee et al., Gynecologic Oncology 2005; 96: 48-55

2. Press et al., Gynecologic Oncology 2008; 110: 256-264

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