LTL-331R datasheet

Origin	Human prostate cancer	**Histopathology**	Neuroendocrine carcinoma
Year of establishment	2011	**Doubling time**	6-8 days (subrenal capsule graft site)
Local invasion	Yes	**Metastasis**	Yes
Hormone Sensitivity	Androgen -independent		

The LTL-331R tumor tissue line (Fig. 1) is a castration-resistant subline of LTL-331; it was developed by castration (androgen ablation) of mice bearing LTL-331 xenografts. In contrast to its adenocarcinoma parental line LTL-331, the LTL-331R is composed of round/oval cells that stain positive for neuroendocrine markers. When grafted at the subrenal capsule site, LTL-331R xenografts show invasion into adjacent parenchyma of host kidney and metastases to distant organs. LTL-331R presents androgen-independent growth *in vivo*. Viable tissues of the LTL-331R in early generations have been preserved by cryopreservation (DMSO), and can be readily resurrected for grafting.

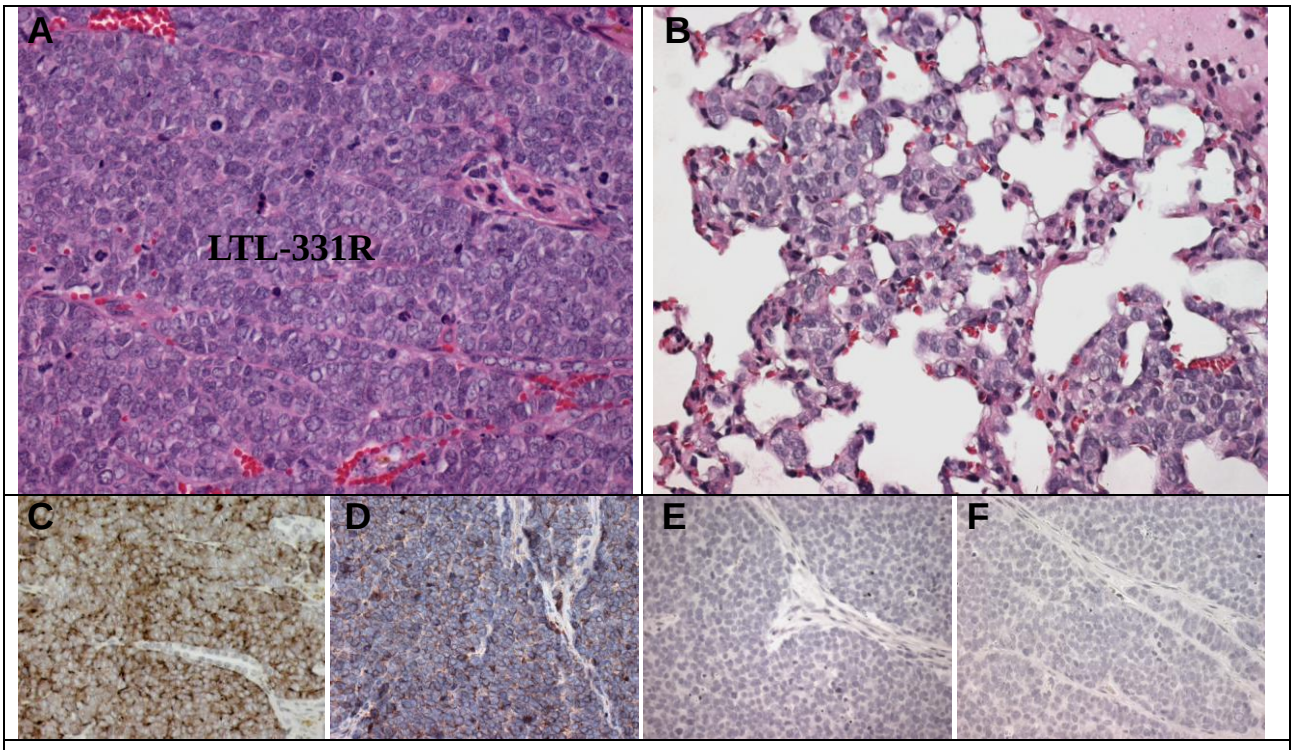

Fig. 1. (A), an H&E stained LTL-331R tissue section. Round/oval tumor cells with scarce cytoplasm grow in solid sheets. Mitotic rate is very high (20-30/HPF). **(B),** metastases of LTL-331R cells in host lung. **(C-F),** the tumor cells show strong immunostaining for Synaptophysin (C) and CD56 (D), and are negative for Androgen Receptor (E) and Prostate Specific Antigen (F). x400

Applications

1. Preclinical evaluation of established 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.

3. Study of genetic and cellular mechanisms underlying castration resistance, chemoresistance, tumor growth, progression/metatasis.

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