

LRP1 is differentially expressed in HPV negative and HPV positive head and neck squamous cell carcinoma (HNSCC)

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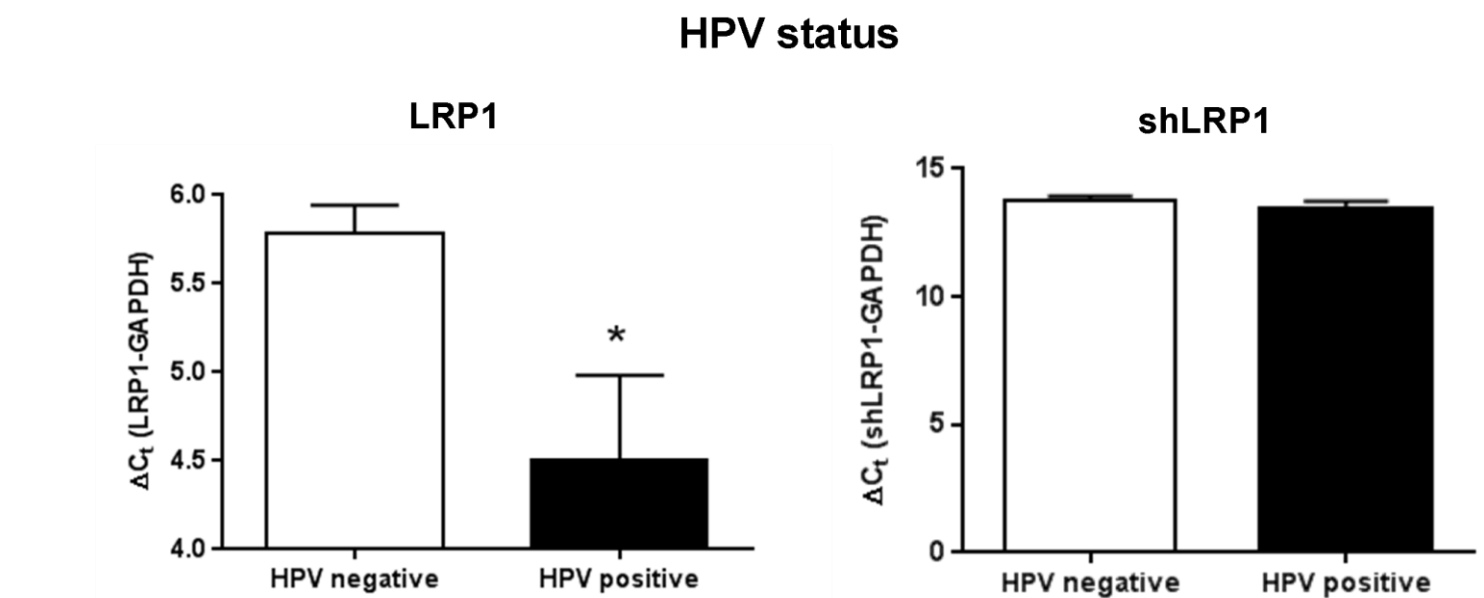
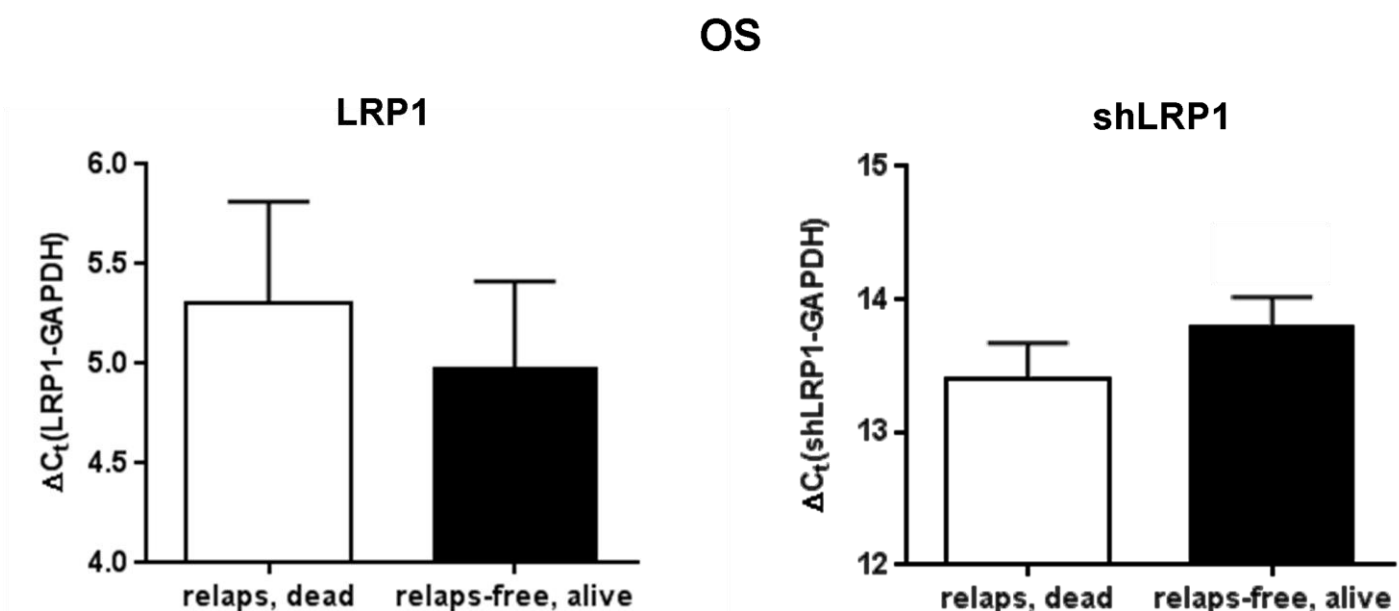
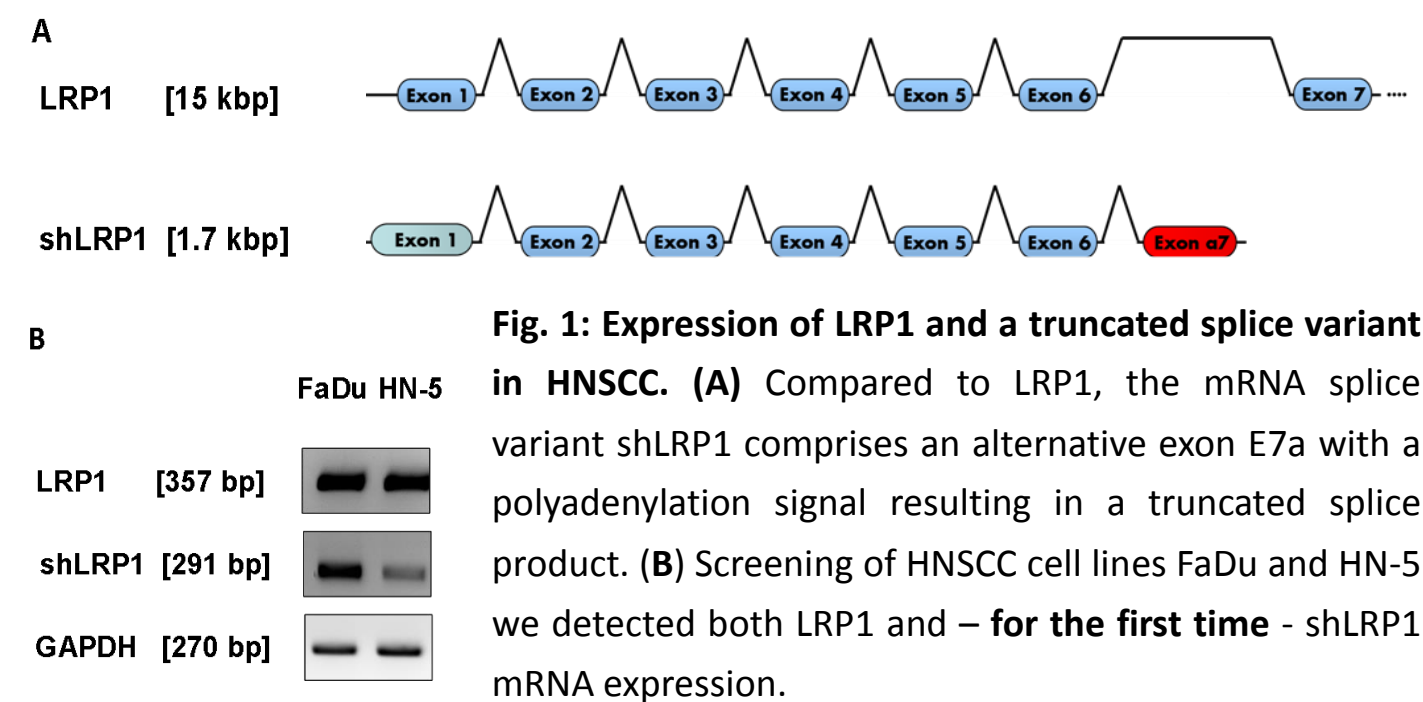
Background

LRP1 is a potential prognostic marker in several cancer entities since its lowered expression is associated with unfavourable clinical outcome^{1,2}. Moreover, LRP1 expression was associated with p53 and p16 alteration³, serpin-protease-complex-clearance⁴, high-grade and aggressiveness in other tumour entities^{3,5} – all characteristics of HNSCC.

Methods

After detection of LRP1 and a truncated splice variant (shLRP1) in the **HNSCC-derived cell lines** FaDu and HN5, RNA of 10 primary HNSCC with and **identical TNM status (pT4a pN2b cM0)** at time of diagnosis, but despite identical treatment **different clinical course** regarding either **A) a rather short progression-free (PFS) and overall survival (OS) of the patients (n=5) or B) so far event-free survival** of the patients (n=5) were analyzed for presence of both LRP1 transcripts. Also the HPV DNA status was assessed.

Results



Conclusion

LRP1 is differentially expressed in HPV negative and positive HNSCC. Considering its association with HNSCC characteristics and in particular HPV-related effects on p53 and p16, further experiments are now performed to **corroborate LRP1 as a prognostic marker or therapeutic target** in HNSCC.

References

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