

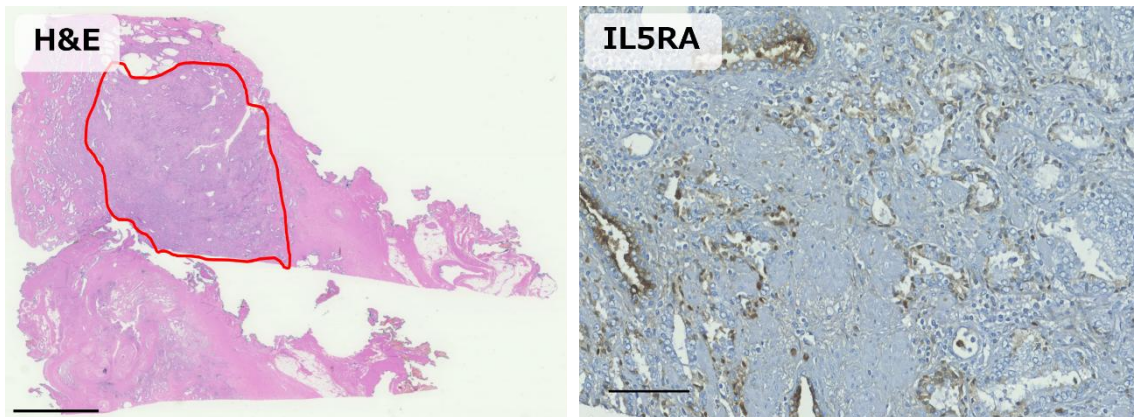
**Supplementary Figure S1. Additional representative cT1c case (age 66 years, PSA 6.7 ng/mL, Gleason Grade Group 3): IL5RA-positive tumor cells in MRI-invisible (MRI-) disease.**

Whole-mount H&E section (left) and IL5RA immunohistochemistry (right) from a patient with clinically localized cT1c prostate cancer, in whom no suspicious lesion was detected on preoperative mpMRI.

The H&E image shows a Gleason score 4 + 3 tumor focus (outlined in red).

Corresponding IL5RA staining demonstrates cytoplasmic and membranous positivity within the MRI-invisible tumor region.

Scale bars = 5 mm (H&E) and 100  $\mu$ m (IHC).



**Supplementary Figure S2. Additional representative pT3b case (age 58 years, PSA 8.7 ng/mL, Gleason Grade Group 3): IL5RA expression in seminal-vesicle-invading tumor cells.**

Whole-mount H&E section (left) and IL5RA immunohistochemistry (right) from a pathologically upstaged pT3b case with seminal vesicle invasion.

The H&E section shows adenocarcinoma extending into the seminal vesicle (outlined in red), morphologically similar to the Gleason 4 + 3 pattern identified in the intraprostatic dominant lesion.

IL5RA immunostaining highlights positive tumor cells within the invasive front, demonstrating that IL5RA expression persists even in locally advanced lesions.

Scale bars = 5 mm (H&E) and 100  $\mu$ m (IHC).