Suppl. data

Resin-embedded FISH Enables High-resolution Spatial Analysis of Gene Expression in Developing Rice Seeds

Yang et al., 2026

Fig. S1

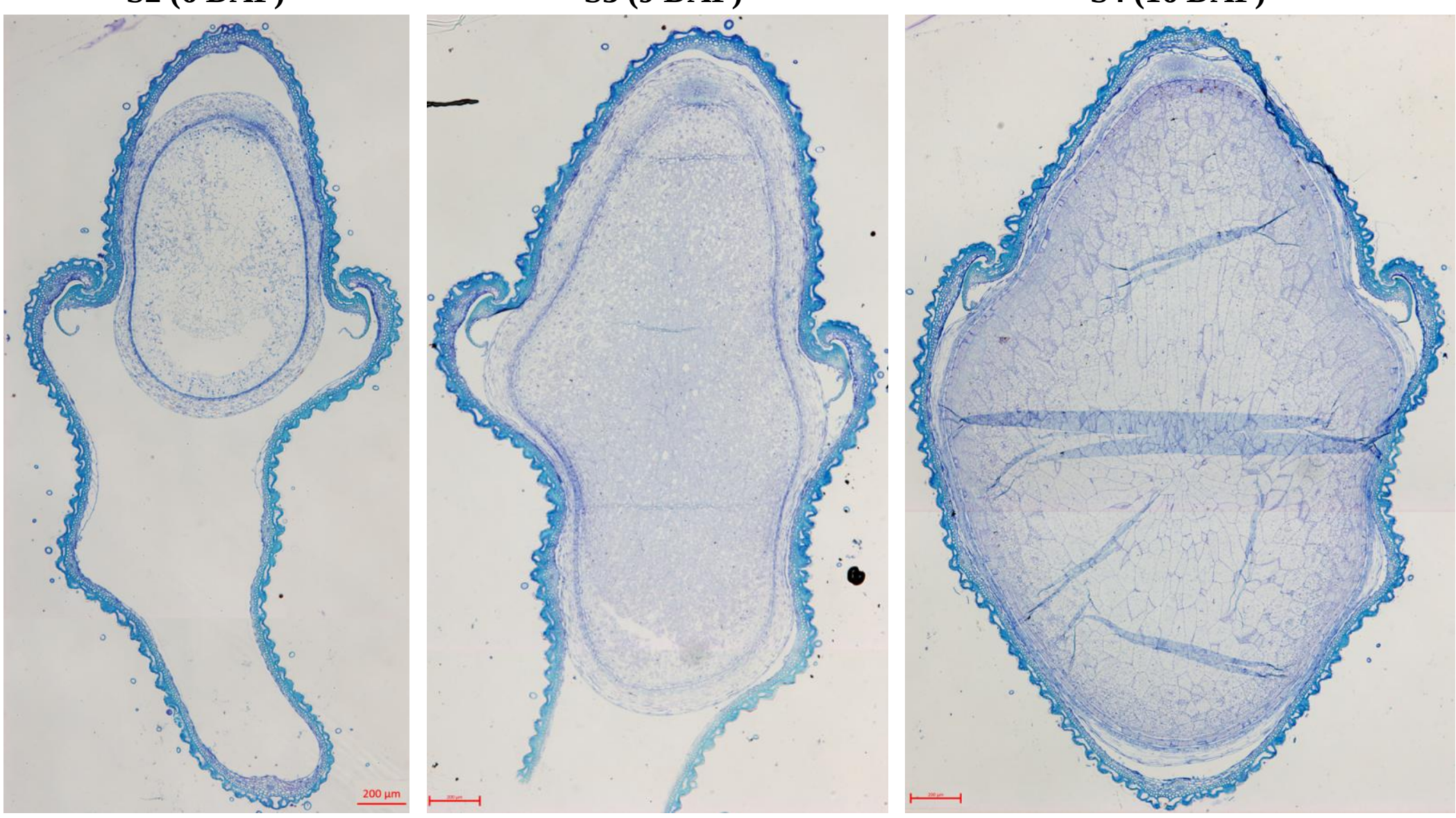

Fig. S1. Anatomical features of resin-embedded rice seed tissues at different developmental stages. Rice seeds were collected at 6 days after pollination (DAP; S2), 9 DAP (S3), and 16 DAP (S4), followed by fixation, LR White resin embedding, sectioning into 2-µm-thick cross sections, and staining with TBO. Scale bars = 200 µm.

Fig. S2

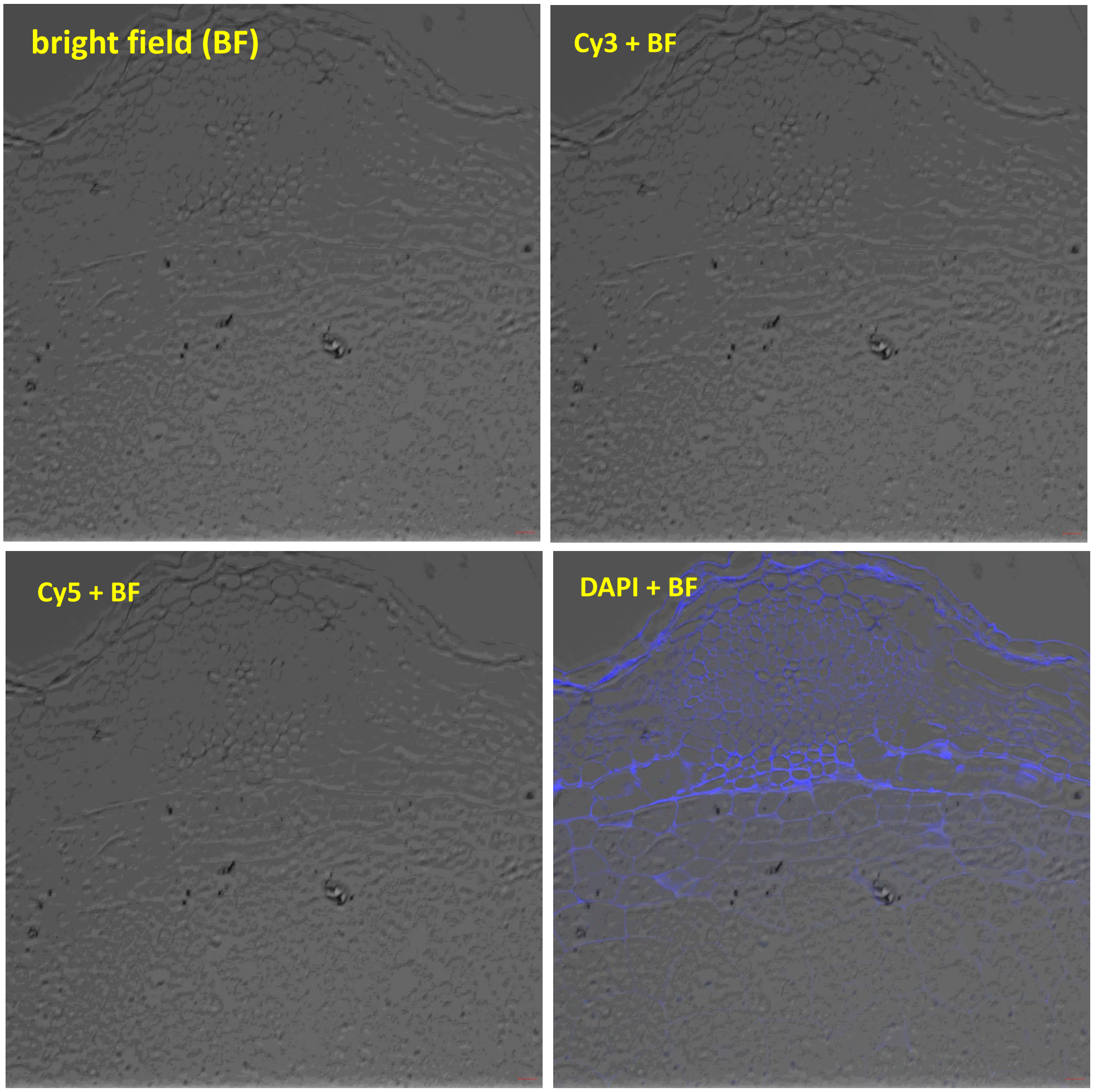

Fig. S2. Autofluorescence detection in resin-embedded rice seed sections
Developing seeds of TNG67 rice at the S4 stage (16 DAP) were fixed, resin-embedded, and cross-sectioned at a 2 μm thickness. Sections were examined by confocal laser scanning microscopy using different excitation/emission (Ex/Em) settings. Cy3 channels were detected at 561 nm/597 nm, and Cy5 channels were detected at 639 nm/740 nm. DAPI fluorescence was detected using 405 nm excitation. These conditions allow visualization of intrinsic autofluorescence in rice seed tissues.

Fig. S3

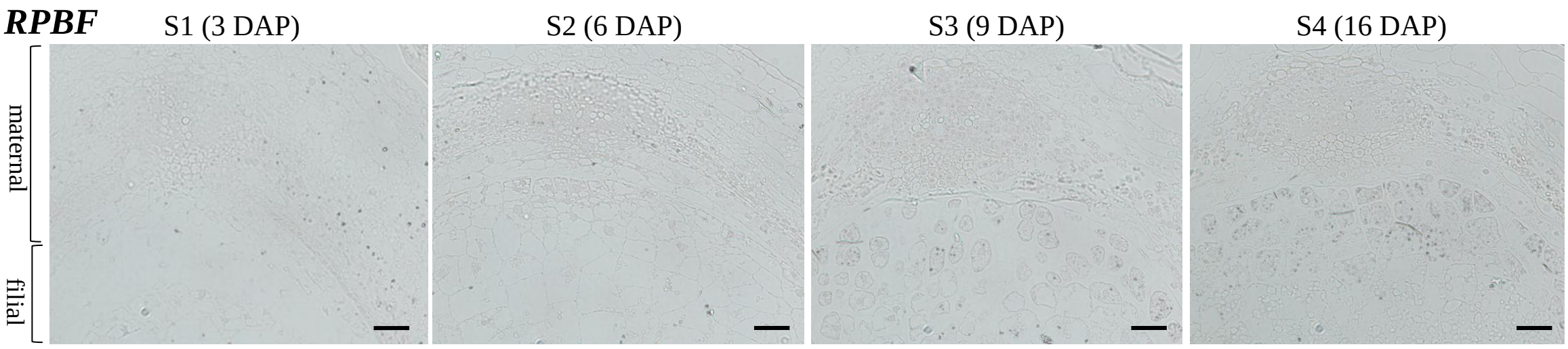

Fig. S3. Chromogenic *in situ* hybridization using the sense probes of *RPBF* and *GBSSI* in developing rice seeds. Developing seeds of TNG67 rice at the S2 to S4 stages were analyzed by chromogenic *in situ* hybridization (ISH) using gene-specific sense probes. Arrows indicate hybridization signals in the aleurone layer; arrowheads indicate signals in the dorsal vascular bundle (DVB); asterisks denote signals in maternal tissues, including the nucellar epidermis (NE). Scale bars = 20 μm.

Additional file 1. Video showing the trimming of a resin block using a Sonic Saber knife.