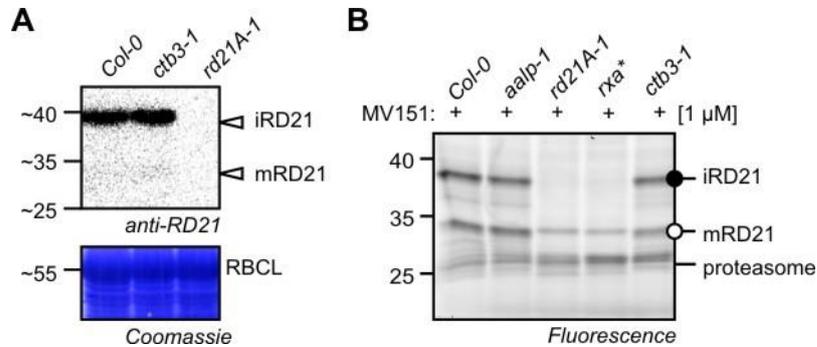


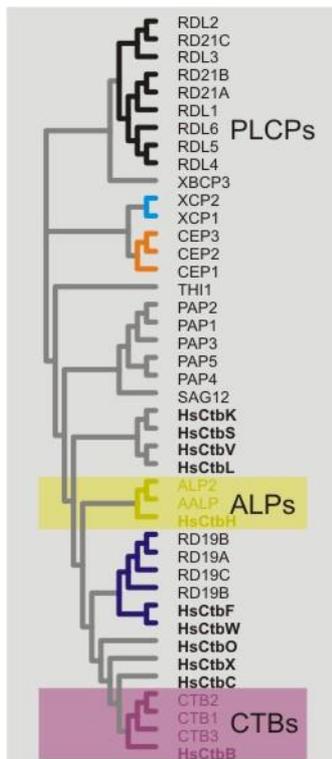
**Supplemental Figures** Lu et al., ‘*Subfamily-specific Fluorescent Probes for Cys proteases Display Dynamic Protease Activities During Seed Germination*’



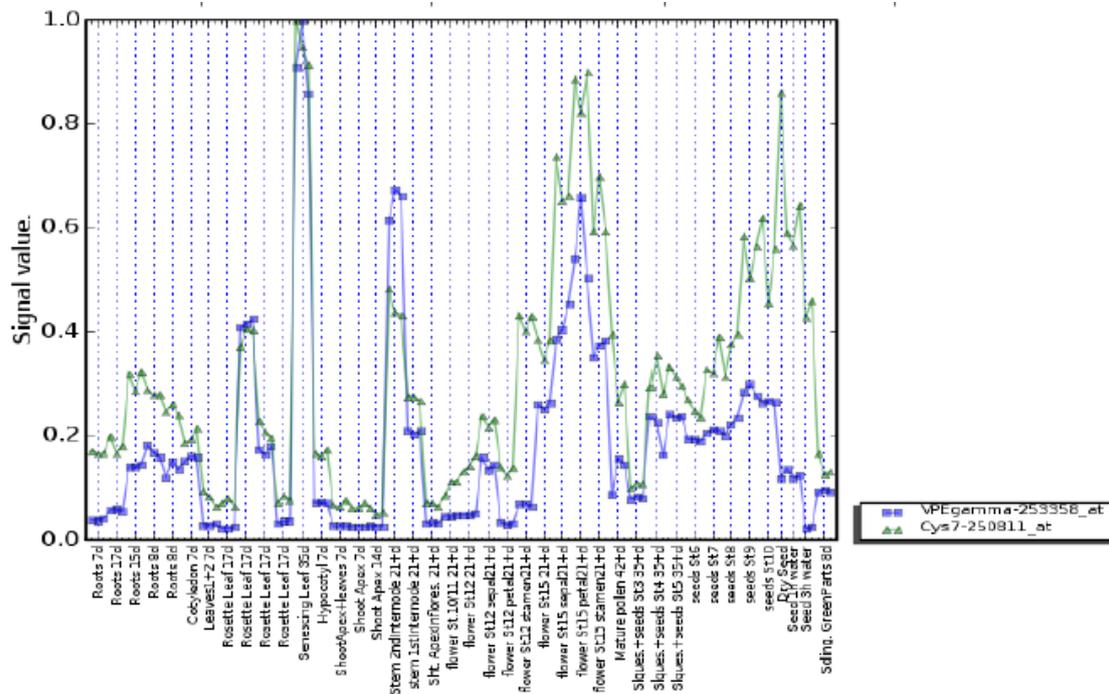
**Supplemental Figure S1** Accumulation and labeling of RD21 in *ctb3-1* mutant plants.

**(A)** RD21 processing and accumulation is unaltered in *ctb3-1* mutant. Leaf extracts of WT plants, *rd21A-1* and *ctb3-1* were separated on protein gels, transferred to PVDF and probed with the primary anti-RD21 antibody and secondary anti-rabbit antibody.

**(B)** RD21 activity is unaltered in the *ctb3-1* mutant. Labeling profile of MV151 on leaf extracts of various protease mutants. MV151 labels both RD21 and the proteasome (Gu et al., (2010) Plant J. 62, 160-170). Leaf extracts of Col-0, *aalp-1*, *rd21A-1*, *rxax\** (\*, double mutant *rd21A-1 x aalp-1*) and *ctb3-1* were labeled with 1 μM MV151 at pH 6 and labeled proteins were detected by in-gel fluorescence. MV151 labels mature RD21 (mRD21) at 34 kDa and this signal is unaffected in the *ctb3-1* mutant.



**Figure S2.** Phylogenetic tree of human and Arabidopsis PLCPs



**Figure S3.** Co-expression of *AtCYS6* with *yVPE* during development. Data were extracted from *Arabidopsis thaliana* microarrays using Genevestigator.