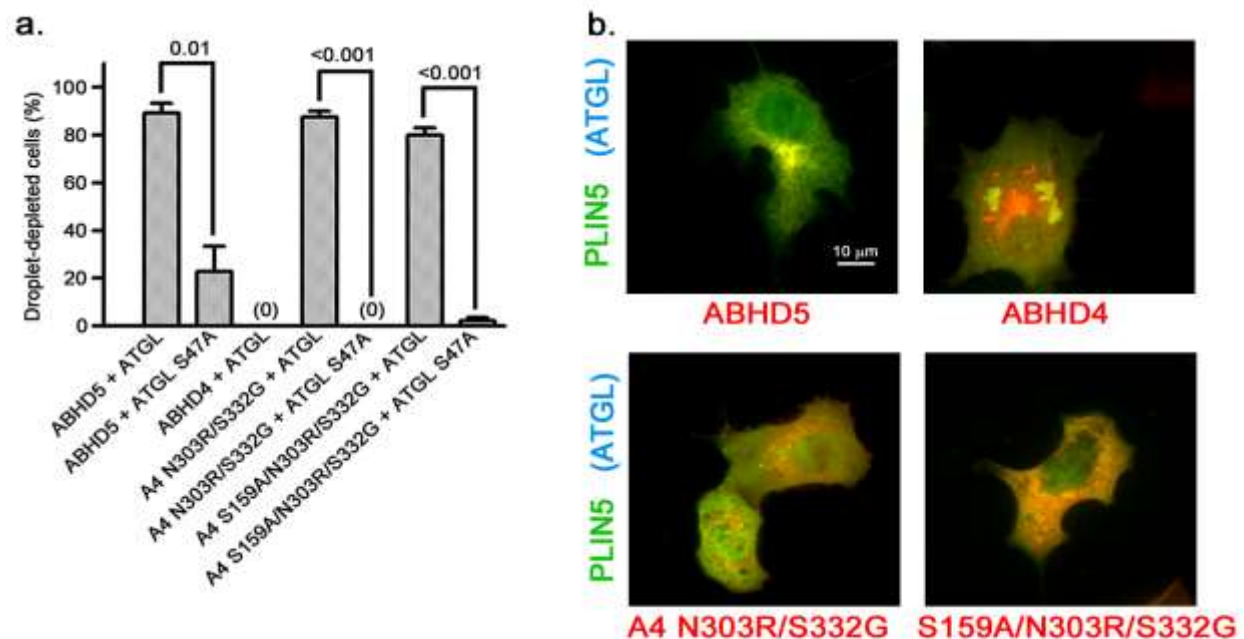


Molecular Basis of ABHD5 Lipolysis Activation

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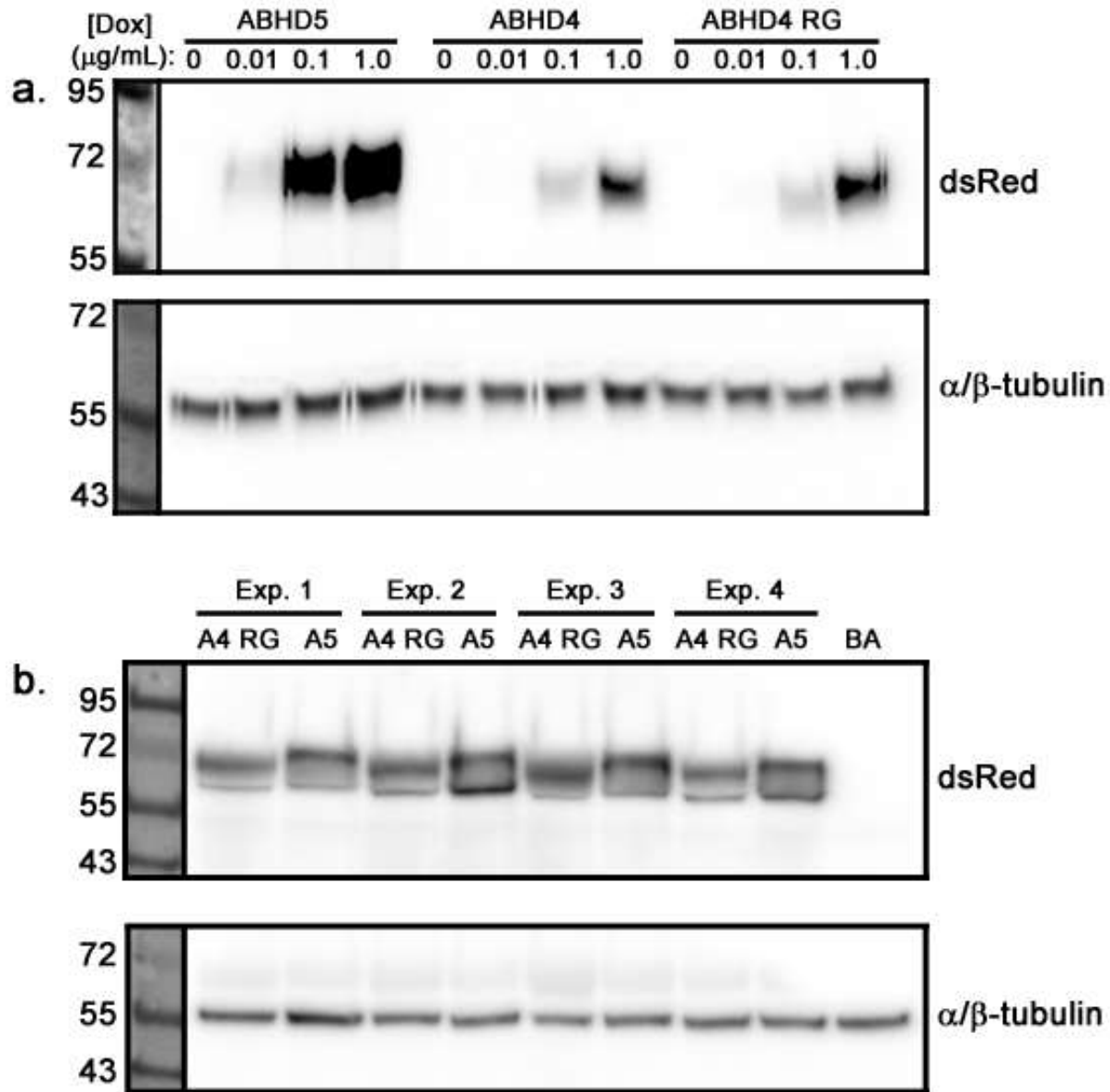
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Supplementary Figure S1



Supplementary Figure S1. ATGL activation by gain-of-function ABHD4 N303R/S332G is independent of ABHD4 hydrolase activity. **a)** Cos7 cells transfected with ABHD protein-mCherry, PLIN5-EYFP, and ATGL-CFP or ATGL S47A-CFP (lipase inactive) were lipid loaded overnight then fixed. Results are based on three independent experiments. **b)** Representative images of cells scored in **a)**. Scale bar = 10 μ m.

Supplementary Figure S2



Supplementary Figure S2. Expression profile of re-expressed ABHD proteins in ABHD5-null BA cell lines. **a)** Representative immunoblot showing relative doxycycline-induced expression of ABHD5-mCherry, ABHD4-mCherry, and ABHD4 N303R/S332G-mCherry. This experiment was done twice with the same results. **b)** ABHD4 N303R/S332G-mCherry (A4 RG) and ABHD5-mCherry (A5) expression in BA cell lines from the four independent experiments used in figure 4c for comparing activity of the two proteins. ABHD4 N303R/S332G-mCherry expression was induced by 1 $\mu\text{g/ml}$ doxycycline, while ABHD5-mCherry expression was induced by 0.0125 $\mu\text{g/mL}$ doxycycline. BA, lysate from wild-type differentiated BA cells.