

Figure S1: Characterization of dystrophin expression in human immortalized myoblasts. $30 \, \mu g$ of total protein extracts from undifferentiated Wild Type (W1 & W2) and DMD (D1 to D4) cell line were separated by SDS-PAGE. Analysis of Dystrophin expression was performed by immunoblotting thanks to the use of Mandra1 antibody. Actin is used as a loading control. As a positive control, $10 \, \mu g$ of total protein extracts of 8 days differentiated W2 cell line (D8, W2) were submitted to the same protocol (n=2).

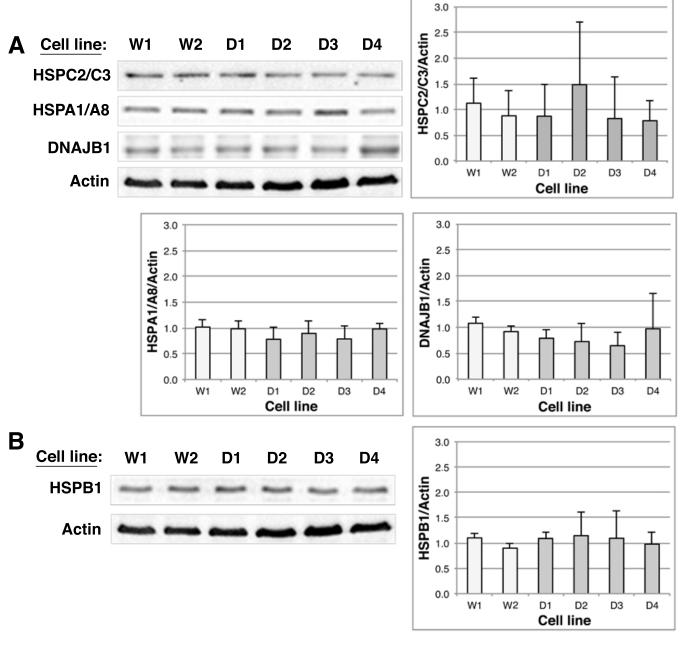
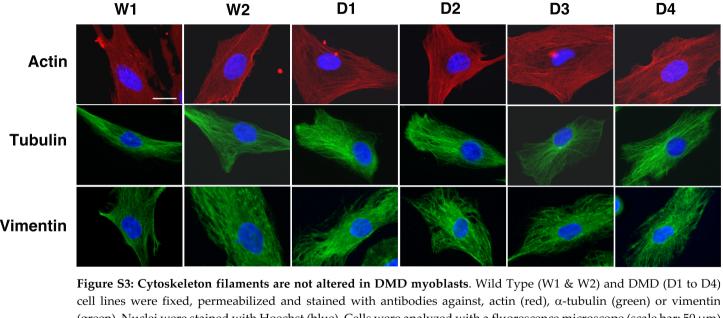


Figure S2: Foldases and HSPB1 holdase expression are not modulated in human immortalized DMD myoblasts. (A and B) 10 μg of total protein extracts from Wild Type (W1 & W2) and DMD (D1 to D4) cell lines were separated by SDS-PAGE. Heat Shock proteins expression was analyzed by immunoblotting using (A) anti-HSPC2/C3, -HSPA1/A8, -DNAJB1 and -Actin antibodies; (B) anti-HspB1 and -Actin. Histograms indicate HSPC2/C3/Actin, HSPA1/A8/Actin, DNAJB1/Actin and HSPB1/Actin ratios. No statistically significant differences were observed between control and DMD cell lines (ANOVA, n=3)



(green). Nuclei were stained with Hoechst (blue). Cells were analyzed with a fluorescence microscope (scale bar: 50 μm) (n=3).

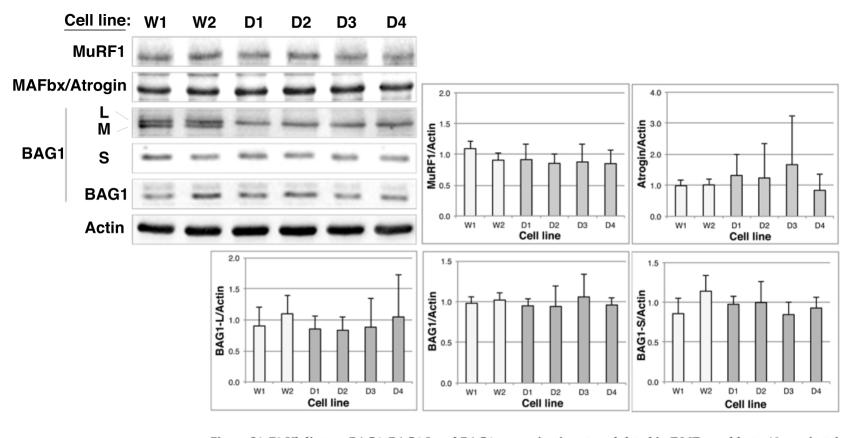


Figure S4: E3 Ub ligases, BAG1, BAG1-L and BAG1 expression is not modulated in DMD myoblasts. $10 \mu g$ of total protein extracts of Wild Type and DMD cell lines were separated by SDS-PAGE. Analysis of the expression of the E3 Ub ligases MuRF1 and MAFbx/Atrogin and of BAG1 isoforms expression was performed using specific antibodies. Actin is revealed as a loading control. Histograms show the ratios of the various proteins vs Actin. No statistically significant differences could be observed (ANOVA test, n=3).

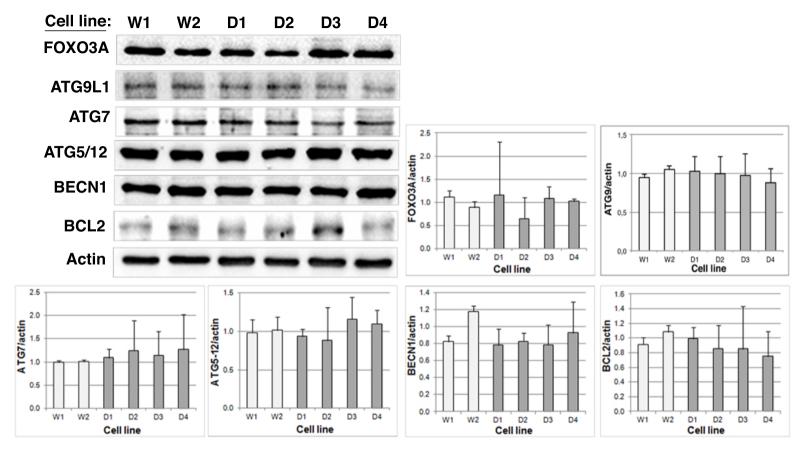


Figure S5: FOXO3A, ATG9L, ATG7, ATG5/12, BECN1 and BCL2 levels are not modulated in DMD myoblasts. $10 \mu g$ of total protein extracts of Wild Type and DMD cell lines were separated by SDS-PAGE. Analysis of the expression of FOXO3a, ATG9L1, ATG7, ATG5/12 BECN1, BCL2 and Actin was performed using specific antibodies. Actin is revealed as a loading control. Histograms show the ratios of the various proteins vs Actin. No statistically significant differences could be observed (ANOVA test, n=3).

| Densitometry FTA DMD Densitometry FTA WT | | Cell line | | | |
|--|----|-----------|-----|-----|-----|
| | | D1 | D2 | D3 | D4 |
| MultiUb | W1 | 2.0 | 2.4 | 2.9 | 3.3 |
| | W2 | 2.3 | 2.0 | 2.4 | 2.9 |
| p62 | W1 | 1.9 | 1.6 | 2.0 | 1.6 |
| | W2 | 1.8 | 1.8 | 1.9 | 1.7 |
| HSPB5 | W1 | 3.8 | 3.6 | 3.6 | 5.2 |
| | W2 | 3.9 | 3.9 | 3.8 | 3.8 |
| HSPB8 | W1 | 3.4 | 3.8 | 2.7 | 3.0 |
| | W2 | 3.1 | 3.2 | 2.9 | 3.7 |
| BAG3 | W1 | 1.9 | 1.6 | 1.9 | 2.2 |
| | W2 | 1.7 | 1.6 | 1.8 | 1.9 |

Table S1: Densitometric quantification of filter trap experiments.

 $2.5~\mu g$ of total protein extracts from WT and DMD cell lines were slot-blotted at four different dilutions (1, 1/2, 1/4 and 1/8) on a cellulose acetate membrane and probed with multi-ubiquitin, p62, HSPB5, HSPB8 or BAG3 antibodies. Densitometric analysis of the blots were performed and ratios between densitometric quantification of the 1/8 dilutions of DMD cell extracts and densitometric quantifications of the 1/8 dilutions of WT cell extracts were calculated and presented in the table. Standard deviation are less than 15%.