



**Supplementary Fig. S1.** Analysis of the proportion of peripheral blood mononuclear cells (PBMC), CD4+, CD8+ T lymphocytes and monocytes expressing Atrogin-1 and TRIM63. The comparison between the isotype control and the expression of the ubiquitin ligases is graphically depicted as histograms.

**Supplementary Table S1.** Immunosuppressive therapy, and laboratory features of patients with IIM.

Variable	Median (IQR)
<b>Immunosuppressive therapy</b>	
Prednisone dose (mg/day)	35 (15-55)
Methotrexate dose (mg/day)	20 (15-25)
Azathioprine dose (mg/day)	100 (50-100)
Mycophenolate mofetil (gr/day)	2.5 (2-3)
Cyclophosphamide (gr/month)	1 (1-1)
Hydroxychloroquine dose (mg/day)	200 (200-400)
<b>Laboratory features</b>	
Total leukocyte count (x 10 <sup>9</sup> x L) (4-12 x 10 <sup>9</sup> x L)	7.5 (4.1-10.3)
Total neutrophil count (x 10 <sup>6</sup> x L) (1500-8000 x 10 <sup>6</sup> x L)	5346 (2937-8397)
Total lymphocyte count (x 10 <sup>6</sup> x L) (800-5000 x 10 <sup>6</sup> x L)	830 (475-1308)
Total monocytes count (x 10 <sup>6</sup> x L) (200-950 x 10 <sup>6</sup> x L)	400 (261-728)
Neutrophil/lymphocyte rate (1-3)	5.93 (3.12-13.46)
Haemoglobin (g/dL) (14.5-17.7 g/dL)	14 (12.95-14.85)
Alanine aminotransferase (U/L) (7-52 U/L)	66 (37-154)
Aspartate aminotransferase (U/L) (13-39 U/L)	115 (45-205)
Creatine phosphokinase (U/L) (30-223 U/L)	483 (85-3404)
Lactate dehydrogenase (U/L) (140-271 U/L)	366 (273-671)
Globulins (g/dL) (1.9-3.7 g/dL)	3.2 (2.8-3.5)
Albumin (g/dL) (3.5-5.7 g/dL)	3.7 (3.3-3.9)
Creatinine (mg/dL) (0.7-1.3 mg/dL)	0.63 (0.39-0.73)
Blood urea nitrogen (BUN) (mg/dL) (7-25 mg/dL)	13.2 (10.3-18.15)
Erythrocyte sedimentation rate (ESR) (mm/hr) (2-30 mm/hr)	15 (7-21)
C-reactive protein (CPR) (mg/dL) (0-1 mg/dL)	0.57 (0.25-2.28)

**Supplementary Table S2.** Parameters of disease activity and damage accrual of patients with IIM.

Feature	Median (min-max)
Manual muscle test (MMT8)	124 (12-150)
Physician's disease activity (VAS) <sup>1</sup>	8 (1-10)
Patient's disease activity (VAS)	8.5 (1-10)
Active CDASI <sup>2</sup>	6 (0-80)
Chronic CDASI	4 (1-16)
MDAAT <sup>3</sup>	0.24 (0-0.68)
MITAX <sup>4</sup>	0.33 (0-0.78)
Other disease activity (VAS)	0 (0-0)
Extra-muscular disease activity (VAS)	7.5 (0-10)
Muscle disease activity (VAS)	6 (0-10)
Global disease activity (VAS)	7 (0-10)
<b>MDI<sup>5</sup></b>	
Extent of damage	0 (0-0.05)
Severity of damage	0 (0-0.25)
Extended damage	0 (0-3)
HAQ6	2.6 (0-3)

<sup>1</sup>Visual analogue scale; <sup>2</sup>Cutaneous dermatomyositis disease area severity index; <sup>3</sup>Myositis disease activity assessment tool; <sup>4</sup>Myositis intention to treat index; <sup>5</sup>Myositis damage index; <sup>6</sup>Health assessment questionnaire.