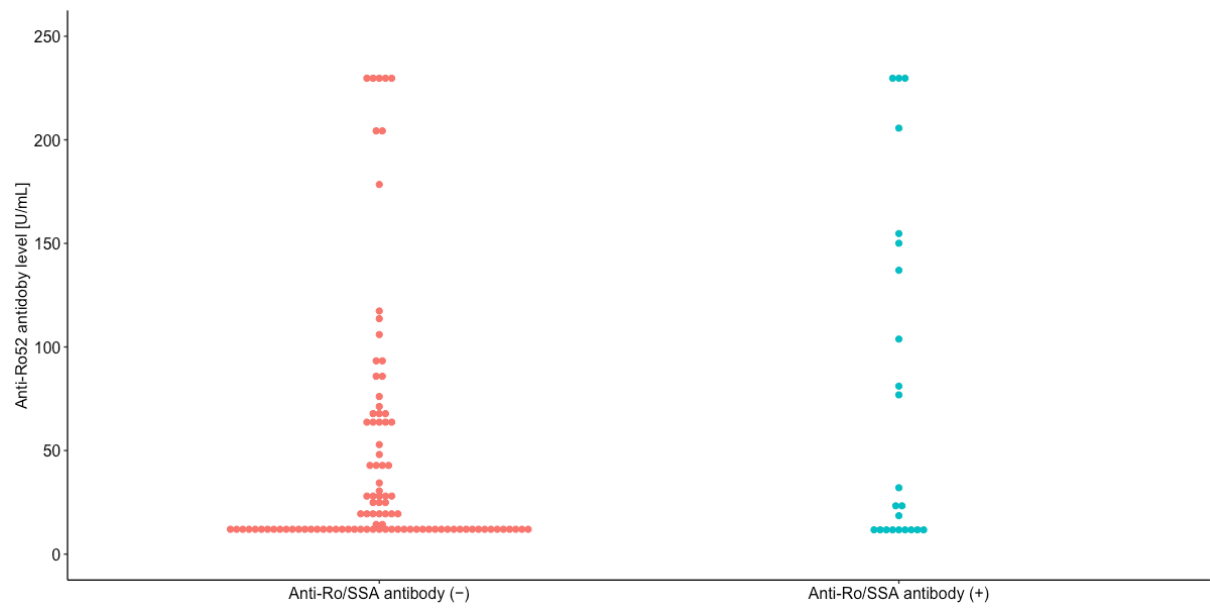
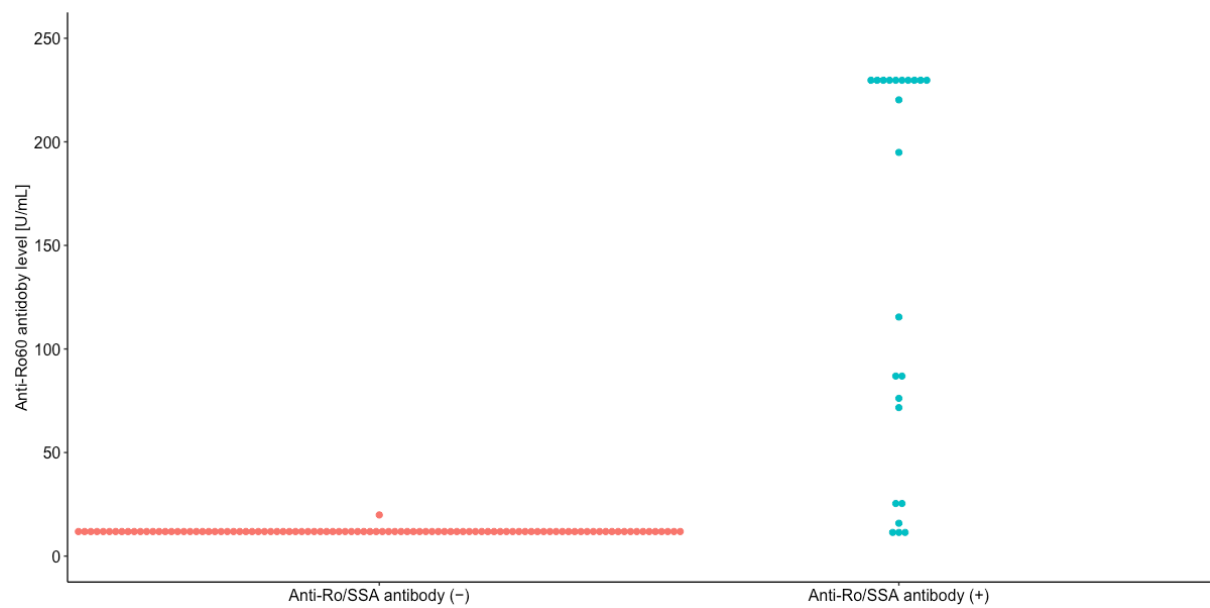


(A)

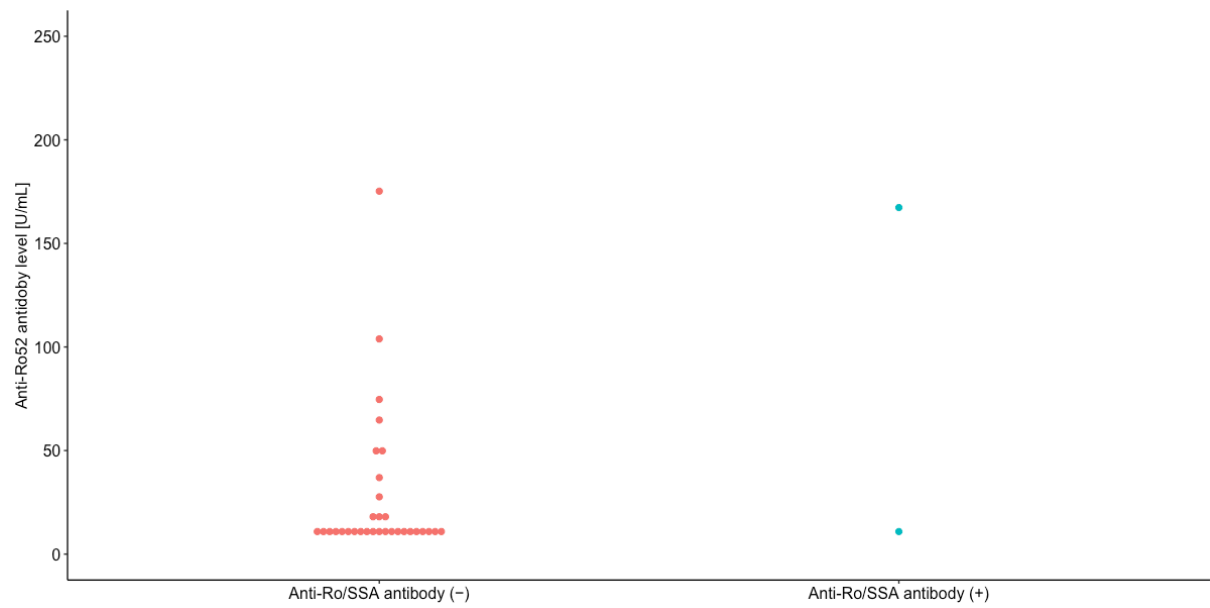


(B)

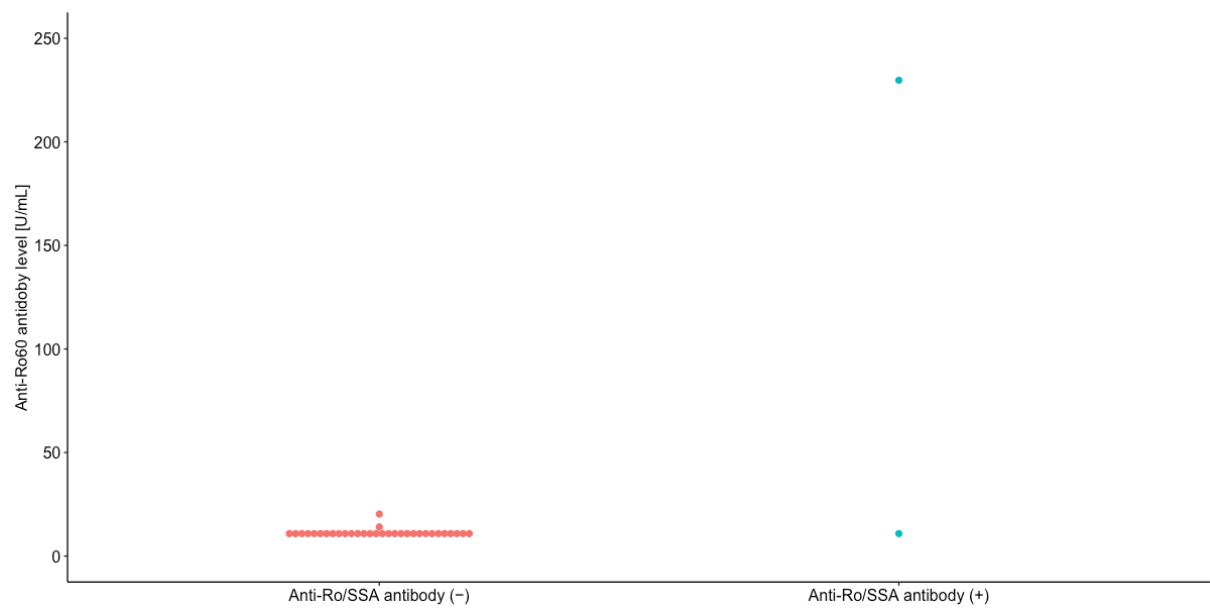


Supplementary Figure S1. (A) Anti-Ro52 antibody levels and **(B)** Anti-Ro60 antibody levels stratified by anti-Ro/SSA antibody-positivity by RNA-IP in patients with anti-synthetase antibodies.

(A)



(B)



Supplementary Figure S2. (A) Anti-Ro52 antibody levels and **(B)** Anti-Ro60 antibody levels stratified by anti-Ro/SSA antibody-positivity by RNA-IP in patients with anti-MDA5 antibodies.

Supplementary Table S1. Previous studies reporting the prevalence and clinical significance of anti-Ro52 antibodies in patients with anti-synthetase antibodies

Study	Country	Study type	Sample size	Anti-Ro52 antibody testing method	Prevalence of anti-Ro52 antibodies	Clinical association
Brouwer <i>et al.</i> [36]	11 European countries	Retrospective	85	EIA	65.9%	Not reported
Dugar <i>et al.</i> [37]	Australia	Retrospective	42	EIA	35.7%	No association
Marie <i>et al.</i> [14]	France	Retrospective	89	EIA	40.4%	Symptomatic ILD Malignancy, poor OS
Yamasaki <i>et al.</i> [38]	Japan	Retrospective	97	EIA	59.0%	Overlap syndrome
Bauhammer <i>et al.</i> [15]	Germany	Retrospective	61	LIA	42.9%	Acute ILD Non-response to IS drugs
Shi <i>et al.</i> [16]	China	Retrospective	124	LIA	29.0%	RP-ILD
Pinal-Fernandez <i>et al.</i> [17]	USA	Retrospective	169	LIA	65.7%	Arthritis, mechanic's hands, DM-specific rash No association with malignancy or poor OS
Sreevilasan <i>et al.</i> [39]	India	Retrospective	28	LIA	50.0%	No association with ILD
Bozzalla-Cassione <i>et al.</i> [18]	Italy	Retrospective	60	LIA	56.7%	ILD, myositis No association with poor OS

Gui <i>et al.</i> [13]	China	Retrospective	173	LIA	53.2%	No association with RP-ILD or poor OS
Martins <i>et al.</i> [40]	Portugal	Retrospective	70	LIA	21.4%	No association
Sodsri <i>et al.</i> [41]	Thailand	Retrospective	82	LIA	45.1%	ILD, poor OS

DM, dermatomyositis; EIA, enzyme immunoassay; ILD, interstitial lung disease; IS, immunosuppressive; LIA, line immunoassay; NA, not available; OS, overall survival; RP-ILD, rapidly progressive interstitial lung disease.

Supplementary Table S2. Previous studies reporting the prevalence and clinical significance of anti-Ro52 antibodies in patients with anti-MDA5 antibodies

Study	Country	Study type	Sample size	Anti-Ro52 antibody testing method	Prevalence of anti-Ro52 antibodies	Clinical association
Huang <i>et al.</i> [19]	Canada	Retrospective	21	LIA	61.9%	RP-ILD Skin ulceration
Xu <i>et al.</i> [20]	China	Retrospective	83	LIA	74.7%	RP-ILD Skin ulceration Poor OS
Cavagna <i>et al.</i> [21]	Italy	Retrospective	149	LIA	31.5%	RP-ILD
Gui <i>et al.</i> [13]	China	Retrospective	173	LIA	53.2%	RP-ILD Poor OS
You <i>et al.</i> [22]	China	Retrospective	272	LIA	64.0%	RP-ILD
Wang <i>et al.</i> [23]	China	Retrospective	126	LIA	60.3%	Poor OS
Liu <i>et al.</i> [24]	China	Retrospective	200	LIA	63.3%	Poor OS

LIA, line immunoassay; OS, overall survival; RP-ILD, rapidly progressive interstitial lung disease.