SUPPLEMENTARY MATERIAL

Online supplemental table S1 Patients with missing data due to COVID-19

Patients, n/N (%)	RZB 150 mg N=483	Placebo N=481
Primary		
ACR20 at week 24	7/483 (1.4)	10/481 (2.1)
Ranked secondary		
Change in HAQ-DI at week 24	7/482 (1.5)	7/479 (1.5)
PASI 90 at week 24	7/273 (2.6)	6/272 (2.2)
ACR20 at week 16	6/483 (1.2)	10/481 (2.1)
MDA at week 24	4/483 (0.8)	3/481 (0.6)
Change in mNAPSI at week 24	7/309 (2.2)	5/338 (1.5)
Change in PGA-F at week 24	7/309 (2.2)	5/338 (1.5)
Resolution of enthesitis at week 24	5/444 (1.1)	7/448 (1.6)
Resolution of dactylitis at week 24	2/188 (1.1)	1/204 (0.5)
Change in PsA-mTSS at week 24	7/458 (1.5)	6/457 (1.3)
Change in SF-36 PCS at week 24	8/482 (1.7)	7/477 (1.5)
Change in FACIT-Fatigue at week 24	8/482 (1.7)	7/477 (1.5)
Other secondary		
ACR50 at week 24	8/483 (1.7)	9/481 (1.9)
ACR70 at week 24	8/483 (1.7)	9/481 (1.9)

ACR20/50/70, ≥20/50/70% improvement in American College of Rheumatology score; FACIT-Fatigue, Functional Assessment of Chronic Illness Therapy-Fatigue Questionnaire; HAQ-DI, Health Assessment Questionnaire-Disability Index; MDA, minimal disease activity; mNAPSI, modified Nail Psoriasis Severity Index; PASI 90, ≥90% reduction in Psoriasis Area and Severity Index; PGA-F, Physician's Global Assessment of Fingernail Psoriasis; PsA-mTSS, psoriatic arthritis-modified Total Sharp Score; RZB, risankizumab; SF-36 PCS, 36 Item Short Form Health Survey Physical Component Summary.

Online supplemental table S2 ACR Component results at week 24

Component	RZB 150 mg N=483	Placebo N=481	p value
Swollen joint count*	N=440	N=420	
Week 24, mean	3.4	5.3	
Change from baseline, LS mean (95%CI)	−8.4 (−8.9, −7.8)	−6.2 (−6.7, −5.6)	<0.001
Tender joint count†	N=440	N=420	
Week 24, mean	8.4	12.5	
Change from baseline, LS mean (95%CI)	−11.2 (−12.2, −10.3)	−7.1 (−8.0, −6.1)	<0.001
Patient's assessment of pain score‡	N=434	N=417	
Week 24, mean	35.3	45.7	
Change from baseline, LS mean (95%CI)	−21.0 (−23.2, −18.8)	−10.2 (−12.5, −8.0)	<0.001
PtGA of disease activity‡	N=434	N=417	
Week 24, mean	35.1	45.5	
Change from baseline, LS mean (95%CI)	−21.6 (−23.9, −19.4)	−10.5 (−12.8, −8.3)	<0.001
PGA of disease activity‡	N=409	N=391	
Week 24, mean	26.3	39.6	
Change from baseline, LS mean (95%CI)	−33.9 (−35.9, −31.8)	−21.1 (−23.2, −19.0)	<0.001
HAQ-DI	N=434	N=417	
Week 24, mean	0.83	1.02	
Change from baseline, LS mean (95%CI)	−0.31 (−0.36, −0.27)	−0.11 (−0.16, −0.06)	<0.001§
hsCRP (mg/L)	N=424	N=396	
Week 24, mean	6.8	10.6	
Change from baseline, LS mean (95%CI)	−4.3 (−5.3, −3.3)	−0.2 (−1.2, 0.8)	<0.001

*Based on 66 joints.
†Based on 68 joints.
‡Scored as millimeters on a 100-mm horizontal visual analog scale.
§Statistically significant under overall type I error control.

ACR, American College of Rheumatology; HAQ-DI, Health Assessment Questionnaire-Disability Index; hsCRP, high-sensitivity C-reactive protein; LS, least squares; PGA, physician global assessment; PtGA, patient's global assessment; RZB, risankizumab.

Online supplemental table S3 ACR20 response rate by concomitant medication at baseline

Patients, n/N (%)	RZB 150 mg	PBO	Difference (95%CI)
Concomitant csDMARD at baseline	212/366 (57.9)	131/364 (35.9)	22.0 (15.0, 29.0)
Any MTX	184/314 (58.6)	115/315 (36.4)	22.1 (14.6, 29.6)
MTX alone	171/294 (58.2)	109/286 (37.9)	20.1 (12.2, 28.0)
MTX and other csDMARD	13/20 (65.0)	6/29 (21.0)	42.6 (22.8, 62.4)
csDMARD other than MTX	28/52 (53.8)	16/49 (32.7)	19.5 (1.0, 37.9)
No csDMARD at baseline	65/117 (55.5)	31/117 (26.2)	30.2 (18.6, 41.7)

Non-responder imputation incorporating multiple imputation if there were missing data due to COVID-19 or non-responder imputation if there were no missing data due to COVID-19.

ACR20, ≥20% improvement in American College of Rheumatology score; csDMARD, conventional synthetic disease-modifying antirheumatic drug; MTX, methotrexate; PBO, placebo; RZB, risankizumab.

Online supplemental table S4 Change from baseline in PsA-mTSS at week 24

Patients, n (%)	RZB 150 mg N=458	PBO N=457	Difference (95%CI)	p value
PsA-mTSS, change from baseline at week 24				
≤0	423 (92.4)	401 (87.7)	4.6 (0.9, 8.4)	0.016
≤0.5	429 (93.7)	413 (90.4)	3.4 (0.0, 6.7)	0.052

Rate difference, 95% CI, and nominal p-value determined using Cochran-Mantel-Haenszel test adjusting for the stratification, factors of current use of csDMARD (0 vs ≥1), presence of dactylitis (yes vs no), presence of enthesitis (yes vs no) and extent of psoriasis (≥3% BSA or <3% BSA) at baseline.

BSA body surface area; csDMARD, conventional synthetic disease-modifying antirheumatic drugs; PsA-mTSS, psoriatic arthritis–modified Total Sharp Score; PBO, placebo; RZB, risankizumab.

Online supplemental table S5 Proportion of patients achieving DAPSA* responses at week 24

Patients, n (%)	RZB 150 mg N=483	PBO N=481	Difference (95%CI)	p value
DAPSA LDA + REM†	199 (41.2)	108 (22.5)	18.9 (13.2, 24.6)	<0.001
DAPSA REM‡	55 (11.3)	16 (3.2)	8.1 (4.9, 11.3)	<0.001
≥50% reduction in DAPSA	272 (56.3)	154 (32.0)	24.5 (18.4, 30.6)	<0.001
≥85% reduction in DAPSA	79 (16.4)	21 (4.4)	12.1 (8.3, 15.9)	<0.001

Rate difference, 95% CI, and nominal p-value determined using Cochran-Mantel-Haenszel test adjusting for the stratification, factors of current use of csDMARD (0 vs ≥1), presence of dactylitis (yes vs no), presence of enthesitis (yes vs no) and extent of psoriasis (≥3% BSA or <3% BSA) at baseline.

*DAPSA mean score at baseline was 45.6 for RZB (n=482) and 45.3 for PBO (n=479).

†Defined as DAPSA score ≤14.

‡Defined as DAPSA score ≤4.

BSA body surface area; csDMARD, conventional synthetic disease-modifying antirheumatic drugs; DAPSA, Disease Activity index for Psoriatic Arthritis; LDA, low disease activity; PBO, placebo; REM, remission, RZB, risankizumab.