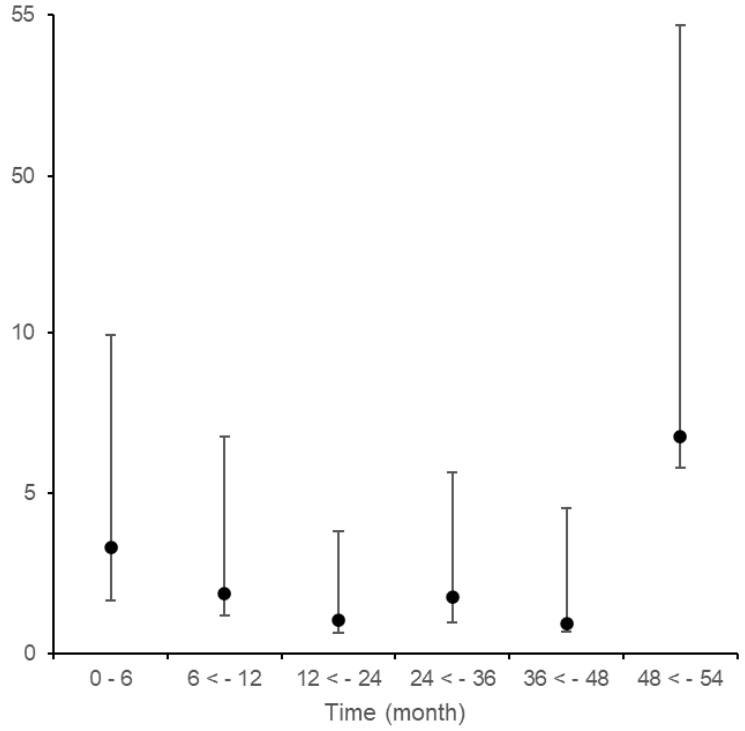
Supplementary Figure 1



Time (month)	Total exposure (PY)	No. of events	IR per 100 PY	95% CI	
				Lower	Upper
0-6	241.35	8	3.31	1.66	6.63
>6-12	216.24	4	1.85	0.69	4.93
>12-24	382.83	4	1.04	0.39	2.78
>24-36	343.22	6	1.75	0.79	3.89
>36-48	220.89	2	0.91	0.23	3.62
>48-54	14.81	1	6.75	0.95	47.93

The chart consists of the incidence rate as a point and the 95% confidence interval (CI) as the bar in each period. The table contains total exposure (person-year), number of events, incidence rate, and 95% confidence interval.

Supplementary Table 1. Trial continuous rate in the subgroup of the previous trials

	Completed each trial (%)	Week 104 (%)	Week 156 (%)	Completed HOSHIOZRA trial (%)
OHZORA trial	335 (87.9)	288 (75.6)	259 (68.0)	221 (58.0)
NATSUZORA trial	101 (72.1)	82 (58.6)	64 (45.7)	58 (41.4)

The continuous rate in the subgroup of the previous trials at the completion of the respective trial, Week 104, 156 and the completion of the HOSHIZORA trial.

Supplementary Table 2. Demographic and other baseline characteristics for FAS

	30 mg (n = 246)	Total (n = 446)
Sex, female, no. (%)	176 (71.5)	339 (76.0)
Age, years	56.0 ± 11.7	56.0 ± 11.6
Age <65 years, no. (%)	178 (72.4)	322 (72.2)
Weight, kg	59.89 ± 13.51	59.02 ± 12.80
Disease duration, years	6.9 ± 6.8	7.5 ± 7.5
Concomitant MTX, no. (%)	152 (61.8)	306 (68.6)
Concomitant csDMARDs except for MTX, no. (%)	51 (20.7)	72 (16.1)
Corticosteroid use, no. (%)	111 (45.1)	196 (43.9)
DAS28-CRP	5.26 ± 1.03	5.19 ± 0.99
DAS28-ESR	5.89 ± 1.02	5.85 ± 0.98
TJC68	16.5 ± 9.2	16.0 ± 9.0
SJC66	13.2 ± 6.8	12.9 ± 6.7
Pain VAS, mm	52.6 ± 27.2	52.8 ± 27.4
PhGA, mm	62.0 ± 20.0	61.7 ± 19.4
PtGA, mm	55.3 ± 26.9	55.1 ± 27.1
CDAI	32.86 ± 11.87	32.15 ± 11.15
SDAI	34.61 ± 12.73	33.81 ± 11.86
J-HAQ-DI	1.0010 ± 0.6596	1.0435 ± 0.6644
hs-CRP, mg/dL	1.77 ± 2.13	1.65 ± 2.06
ESR, mm/h	40.6 ± 22.5	40.4 ± 22.6

Demographic and other baseline characteristics at the start of the previous trials for FAS.

Supplementary Table 3. Response rate of efficacy endpoints in OC

			Week 52	Week 104	Week 156
ACR20 (OC)		30 mg	175 (90.2)	127 (87.6)	106 (88.3)
		total	337 (90.6)	242 (89.3)	204 (88.7)
ACR50 (OC)		30 mg	145 (75.9)	113 (79.0)	101 (84.2)
		total	270 (73.4)	209 (78.0)	187 (81.3)
ACR70 (OC)		30 mg	106 (55.5)	90 (62.1)	84 (70.6)
		total	188 (51.1)	159 (59.8)	151 (66.5)
SDAI	Remission (OC)	30 mg	70 (36.1)	64 (44.8)	60 (50.0)
		total	136 (36.3)	123 (45.6)	117 (51.3)
	LDA (OC)	30 mg	153 (78.9)	119 (83.2)	108 (90.0)
		total	295 (78.7)	225 (83.3)	199 (87.3)
CDAI	Remission (OC)	30 mg	68 (35.1)	63 (43.4)	57 (47.5)
		total	131 (34.9)	119 (43.6)	112 (48.5)
	LDA (OC)	30 mg	151 (77.8)	119 (82.1)	110 (91.2)
		total	288 (76.8)	225 (82.4)	204 (88.3)
DAS28-CRP	Remission (OC)	30 mg	127 (65.5)	95 (66.4)	95 (79.2)
		total	250 (66.7)	192 (71.1)	180 (78.9)
	LDA (OC)	30 mg	157 (80.9)	115 (80.4)	107 (89.2)
		total	300 (80.0)	229 (84.8)	203 (89.0)
J-HAQ-DI	Remission (OC)	30 mg	145 (74.7)	113 (77.9)	95 (79.2)
		total	271 (72.3)	205 (75.1)	176 (76.2)

Response rate of efficacy endpoints in OC at Week 52, 104, and 156.

Supplementary Table 4. ACR20/50/70 response rates in the subgroup of the previous trials

			Week 52	Week 104	Week 156
ACR20 (NRI)	OHZORA	30 mg	120 (78.9)	90 (59.2)	74 (48.7)
		total	239 (78.1)	182 (59.5)	159 (52.0)
	NATSUZORA	30 mg	55 (58.2)	37 (39.4)	32 (34.0)
		total	85 (60.7)	55 (39.3)	41 (29.3)
ACR50 (NRI)	OHZORA	30 mg	104 (68.4)	81 (53.3)	72 (47.4)
		total	201 (65.7)	158 (51.6)	148 (48.4)
	NATSUZORA	30 mg	41 (43.6)	32 (34.0)	29 (30.9)
		total	64 (45.7)	47 (33.6)	36 (25.7)
ACR70 (NRI)	OHZORA	30 mg	79 (52.0)	65 (42.8)	60 (39.5)
		total	142 (46.4)	121 (39.5)	120 (39.2)
	NATSUZORA	30 mg	27 (28.7)	25 (26.6)	24 (25.5)
		total	43 (30.7)	35 (25.0)	29 (20.7)

ACR20/50/70 response rates by NRI analysis in the subgroups of the previous trials at Week 52, 104, and 156.

Supplementary Table 5. Efficacy analysis of remission or functional remission rates in the subgroup

			ACR20/50/70	SDAI	CDAI	DAS28-CRP	HAQ-DI
Age (year)	<65	30 mg	78 (43.8)/75 (42.1)/64 (36.0)	45 (25.3)	43 (24.2)	71 (39.9)	71 (39.9)
		total	145 (45.0)/133 (41.3)/108 (33.5)	82 (25.5)	77 (23.9)	127 (39.4)	126 (39.1)
	≥65	30 mg	28 (41.2)/26 (38.2)/20 (29.4)	15 (22.1)	14 (20.6)	24 (35.3)	24 (35.3)
		total	55 (44.4)/51 (41.1)/41 (33.1)	32 (25.8)	33 (26.6)	48 (38.7)	46 (37.1)
Disease duration (year)	<3	30 mg	37 (42.0)/36 (40.9)/33 (37.5)	25 (28.4)	23 (26.1)	35 (39.8)	35 (39.8)
		total	62 (42.2)/59 (40.1)/54 (36.7)	40 (27.2)	37 (25.2)	60 (40.8)	55 (37.4)
	≥3	30 mg	69 (43.7)/65 (41.1)/51 (32.3)	35 (22.2)	34 (21.5)	60 (38.0)	60 (38.0)
		total	138 (46.2)/125 (41.8)/95 (31.8)	74 (24.7)	73 (24.4)	115 (38.5)	117 (39.1)
hs-CRP (mg/dL)	<1.0	30 mg	54 (44.6)/50 (41.3)/39 (32.2)	37 (30.6)	36 (29.8)	54 (44.6)	50 (41.3)
		total	109 (46.0)/99 (41.8)/75 (31.6)	71 (30.0)	67 (28.3)	102 (43.0)	99 (41.8)
	≥1.0	30 mg	51 (41.1)/50 (40.3)/44 (35.5)	23 (18.5)	21 (16.9)	40 (32.3)	44 (35.5)
		total	90 (43.5)/84 (40.6)/73 (35.3)	43 (20.8)	43 (20.8)	72 (34.8)	72 (34.8)

Efficacy analysis of remission or functional remission rates in a subgroup at Week 156 by NRI. Data were shown with the number of patients (%).

Supplementary Table 6. Efficacy analysis of remission or functional remission in the HOSHIZORA trial

(a)		Start of the trial	Week 104 in HOSHIZORA trial
ACR20	30 mg	176 (81.1)	154 (71.0)
	80 mg	148 (80.4)	131 (71.2)
ACR50	30 mg	143 (65.9)	142 (65.4)
	80 mg	121 (65.8)	107 (58.2)
ACR70	30 mg	93 (42.9)	119 (54.8)
	80 mg	76 (41.3)	84 (45.7)
SDAI	30 mg	72 (33.2)	96 (44.2)
	80 mg	56 (30.4)	76 (41.3)
CDAI	30 mg	65 (30.0)	90 (41.5)
	80 mg	55 (29.9)	76 (41.3)
DAS28-CRP	30 mg	120 (55.3)	141 (65.0)
	80 mg	108 (58.7)	108 (58.7)
Boolean	30 mg	57 (26.3)	77 (35.5)
	80 mg	42 (22.8)	61 (33.2)
HAQ-DI	30 mg	150 (69.1)	130 (59.9)
	80 mg	125 (67.9)	107 (58.2)

(b) Extended dosing interval (Week 56 from the start of spacing)		
Completion		23 (69.7)
DAS28-ESR	<2.6	21 (63.6)
	<3.2	23 (69.7)

(a) Efficacy analysis was conducted in the 30/80 mg group allocated at the start of the HOSHIZORA trial. (b) Completion rate and categorical analysis of DAS28-ESR in 8 weeks extended dosing interval at Week 56 from the start of spacing. Data were shown with the number of patients (%).