SUPPLEMENTARY MATERIALS

Short-, Mid-, and Long-Term Efficacy of Deucravacitinib Versus Biologics and Nonbiologics for Plaque Psoriasis: A Network Meta-Analysis

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Figure S1. PRISMA flow diagram.

[a]Pooled analyses of RCTs were not included in the SLR unless unique data were available that were not published elsewhere.
[b]RCTs eligible for global NMA and phase 3 global NRI NMA, including POETYK PSO-1 and POETYK PSO-2.
NMA network meta-analysis; *NRI* nonresponder imputation; *PASI* Psoriasis Area and Severity Index; *PRISMA* Preferred Reporting Items for Systematic Reviews and Meta-Analyses; *RCT* randomized controlled trial; *SLR* systematic literature review.

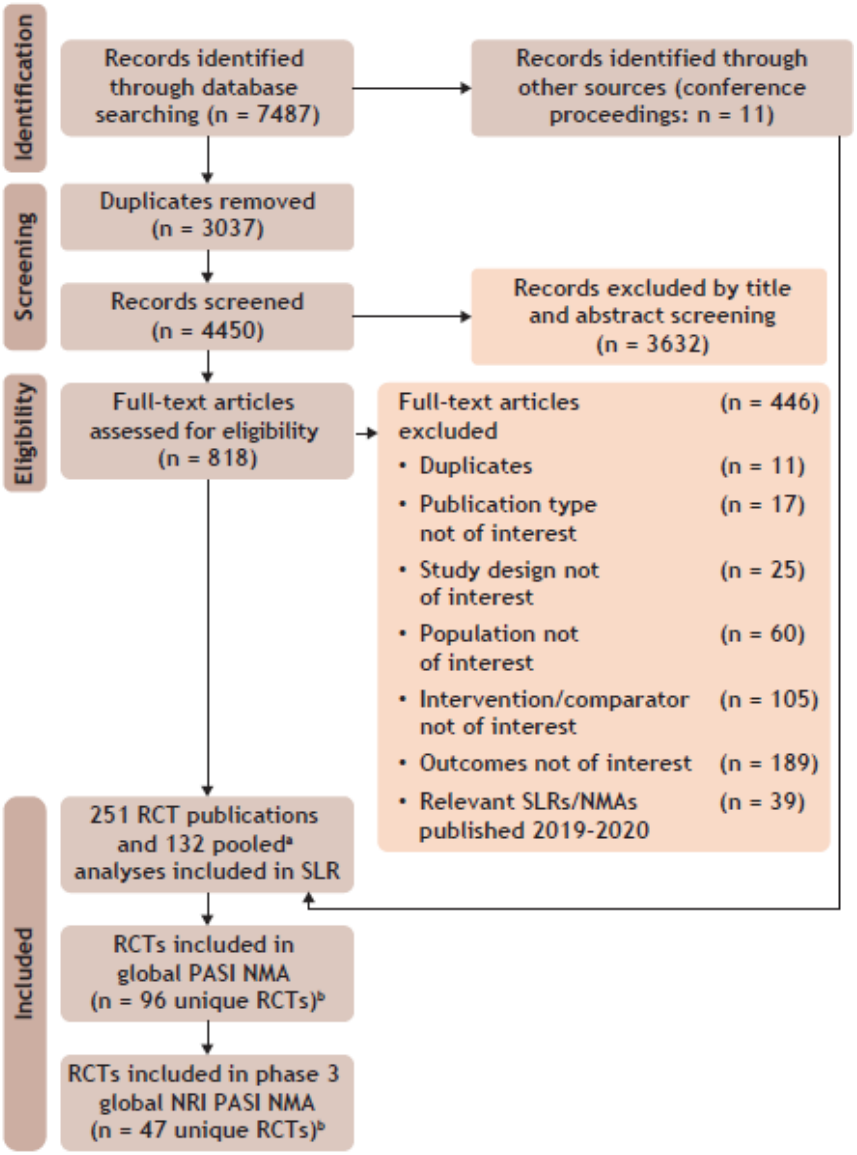
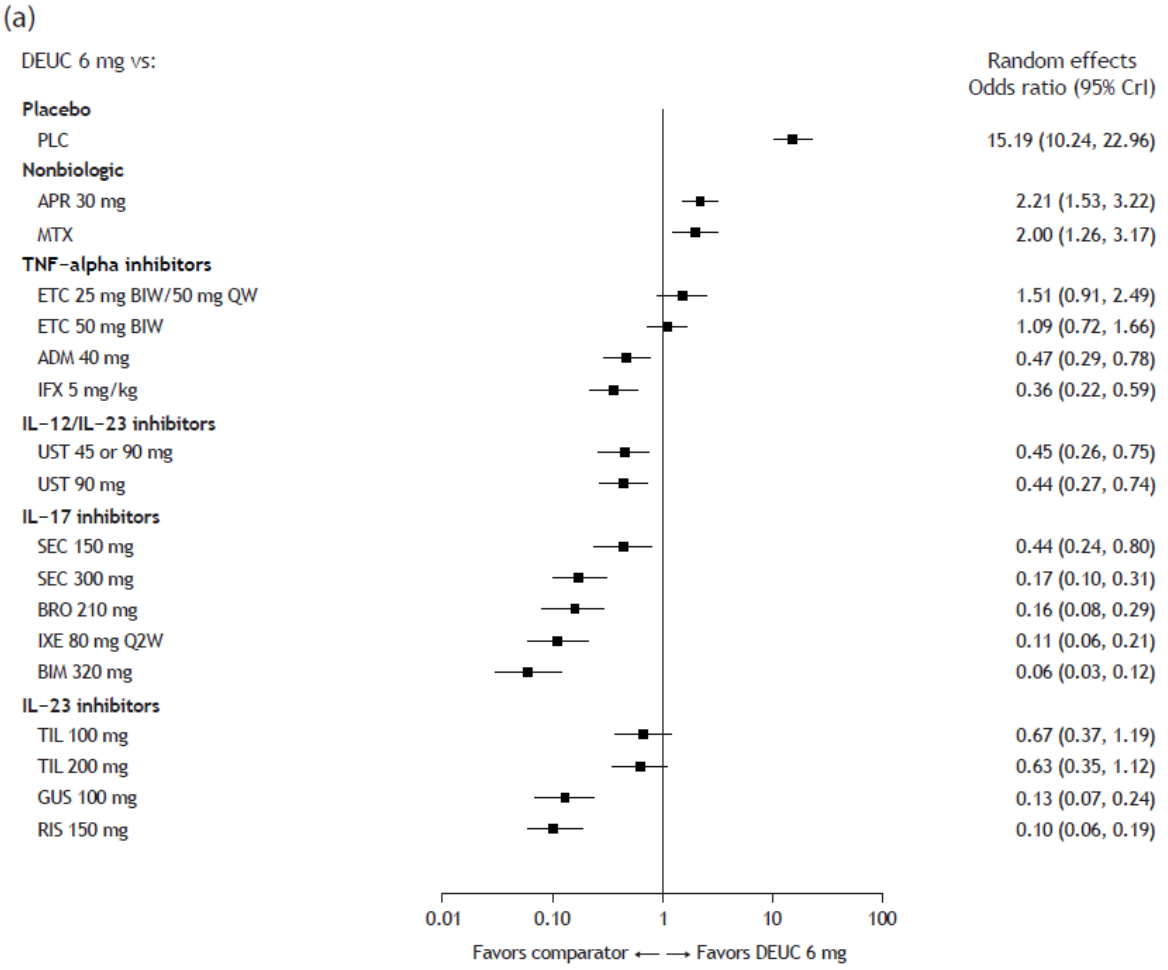
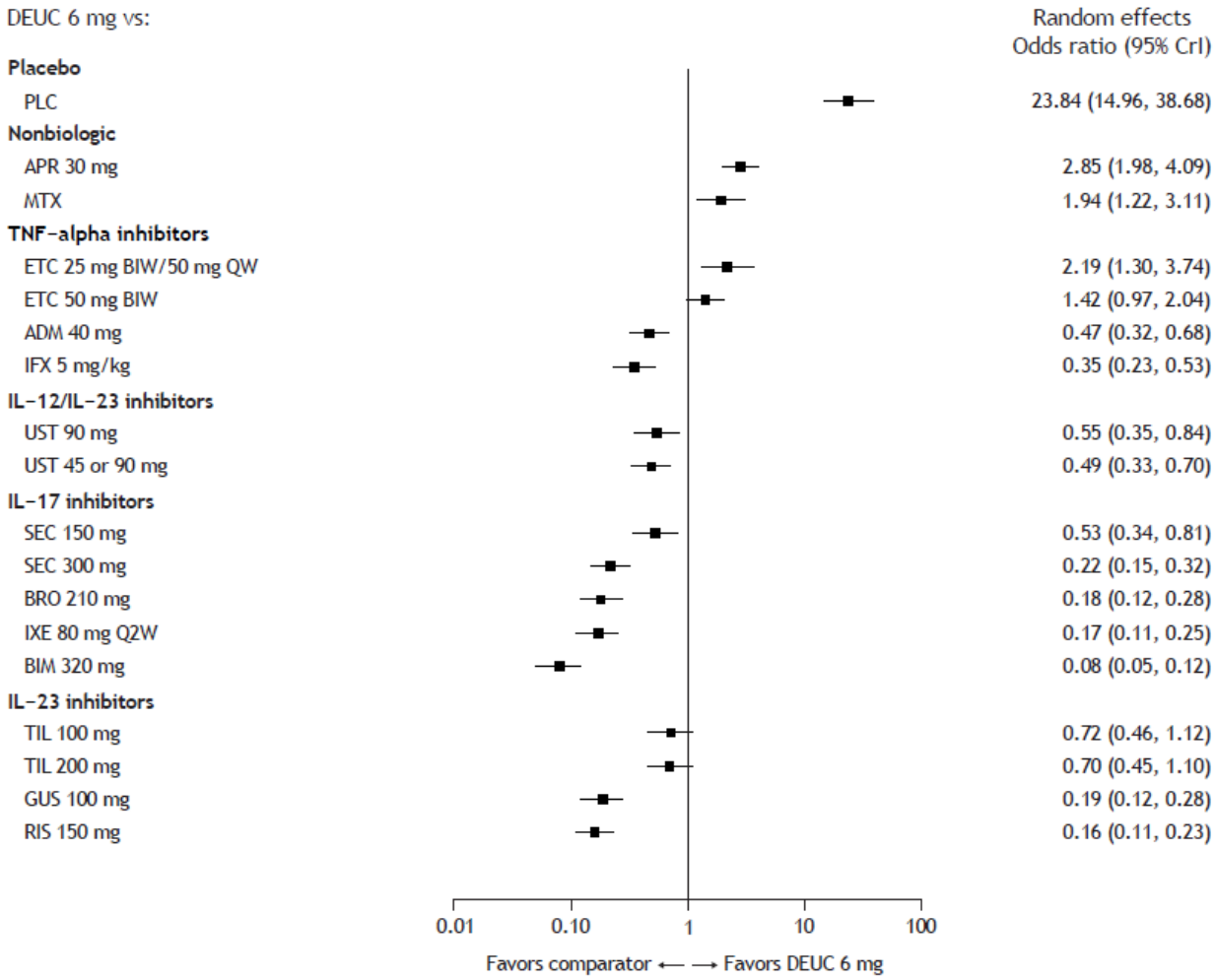


Figure S2. Estimated odds ratios from the network meta-analysis for short-term (a) PASI 50, (b) PASI 90, and (c) PASI 100.

ADM adalimumab; *APR* apremilast; *BIM* bimekizumab; *BIW* twice weekly; *BRO* brodalumab; *CrI* credible interval; *DEUC* deucravacitinib; *ETC* etanercept; *GUS* guselkumab; *IFX* infliximab; *IL* interleukin; *IXE* ixekizumab; MTX methotrexate; NMA network meta-analysis; PASI Psoriasis Area and Severity Index; *PBO* placebo; *Q2W* every 2 weeks; *Q4W* once every 4 weeks; *Q8W* once every 8 weeks; *RIS* risankizumab; *SEC* secukinumab; *TIL* tildrakizumab; *TNF* tumor necrosis factor; *UST* ustekinumab



(b)


DEUC 6 mg vs:
Random effects
Odds ratio (95% CrI)
Placebo
PLC
23.84 (14.96, 38.68)
Nonbiologic
APR 30 mg
2.85 (1.98, 4.09)
MTX
1.94 (1.22, 3.11)
TNF−alpha inhibitors
ETC 25 mg BIW/50 mg QW
2.19 (1.30, 3.74)
ETC 50 mg BIW
1.42 (0.97, 2.04)
ADM 40 mg
0.47 (0.32, 0.68)
IFX 5 mg/kg
0.35 (0.23, 0.53)
IL−12/IL−23 inhibitors
UST 90 mg
0.55 (0.35, 0.84)
UST 45 or 90 mg
0.49 (0.33, 0.70)
IL−17 inhibitors
SEC 150 mg
0.53 (0.34, 0.81)
SEC 300 mg
0.22 (0.15, 0.32)
BRO 210 mg
0.18 (0.12, 0.28)
IXE 80 mg Q2W
0.17 (0.11, 0.25)
BIM 320 mg
0.08 (0.05, 0.12)
IL−23 inhibitors
TIL 100 mg
0.72 (0.46, 1.12)
TIL 200 mg
0.70 (0.45, 1.10)
GUS 100 mg
0.19 (0.12, 0.28)
RIS 150 mg
0.16 (0.11, 0.23)
0.01
0.10
1
10
100
Favors comparator
Favors DEUC 6 mg

(c)

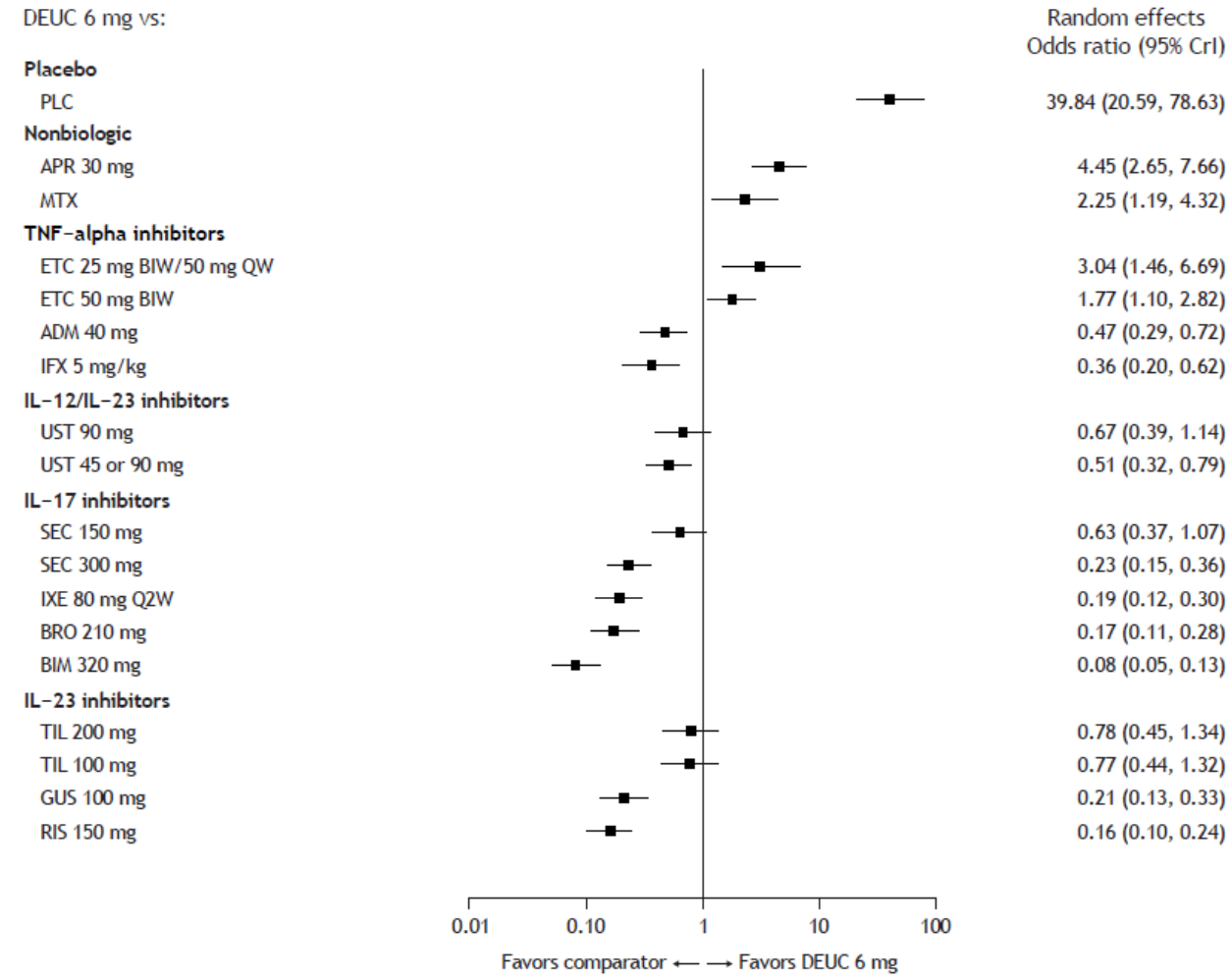
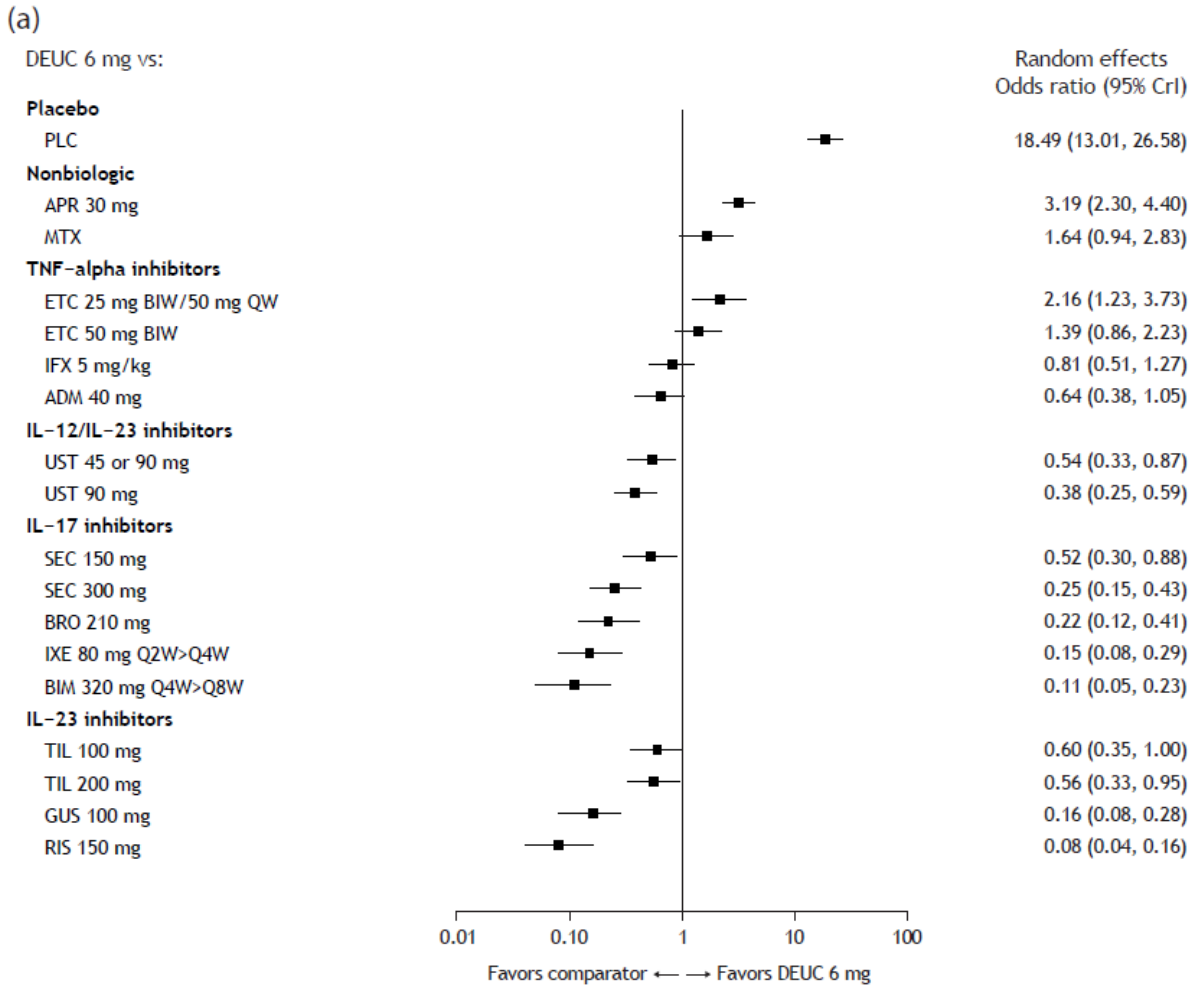
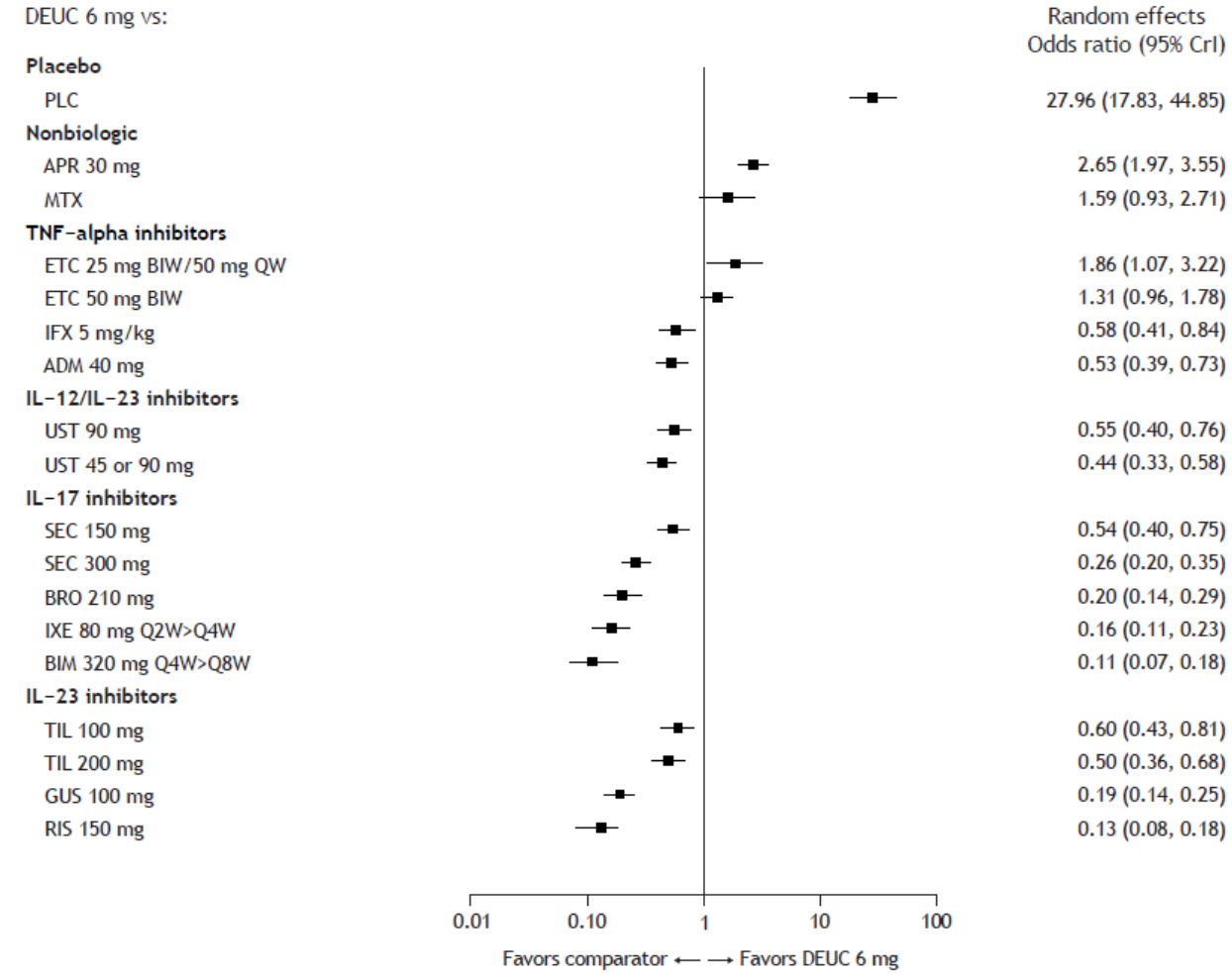

DEUC 6 mg vs:
Random effects
Odds ratio (95% CrI)
Placebo
PLC
39.84 (20.59, 78.63)
Nonbiologic
APR 30 mg
4.45 (2.65, 7.66)
MTX
2.25 (1.19, 4.32)
TNF-alpha inhibitors
ETC 25 mg BIW/50 mg QW
3.04 (1.46, 6.69)
ETC 50 mg BIW
1.77 (1.10, 2.82)
ADM 40 mg
0.47 (0.29, 0.72)
IFX 5 mg/kg
0.36 (0.20, 0.62)
IL-12/IL-23 inhibitors
UST 90 mg
0.67 (0.39, 1.14)
UST 45 or 90 mg
0.51 (0.32, 0.79)
IL-17 inhibitors
SEC 150 mg
0.63 (0.37, 1.07)
SEC 300 mg
0.23 (0.15, 0.36)
IXE 80 mg Q2W
0.19 (0.12, 0.30)
BRO 210 mg
0.17 (0.11, 0.28)
BIM 320 mg
0.08 (0.05, 0.13)
IL-23 inhibitors
TIL 200 mg
0.78 (0.45, 1.34)
TIL 100 mg
0.77 (0.44, 1.32)
GUS 100 mg
0.21 (0.13, 0.33)
RIS 150 mg
0.16 (0.10, 0.24)
0.01
0.10
1
10
100
Favors comparator
Favors DEUC 6 mg

Figure S3. Estimated odds ratios from the network meta-analysis for mid-term (a) PASI 50, (b) PASI 90, and (c) PASI 100.

ADM adalimumab; *APR* apremilast; *BIM* bimekizumab; *BIW* twice weekly; *BRO* brodalumab; *CrI* credible interval; *DEUC* deucravacitinib; *ETC* etanercept; *GUS* guselkumab; *IFX* infliximab; *IL* interleukin; *IXE* ixekizumab; MTX methotrexate; NMA network meta-analysis; PASI Psoriasis Area and Severity Index; *PBO* placebo; *Q2W* every 2 weeks; *Q4W* once every 4 weeks; *Q8W* once every 8 weeks; *RIS* risankizumab; *SEC* secukinumab; *TIL* tildrakizumab; *TNF* tumor necrosis factor; *UST* ustekinumab



(b)


DEUC 6 mg vs:
Random effects
Odds ratio (95% CrI)
Placebo
PLC
27.96 (17.83, 44.85)
Nonbiologic
APR 30 mg
2.65 (1.97, 3.55)
MTX
1.59 (0.93, 2.71)
TNF-alpha inhibitors
ETC 25 mg BIW/50 mg QW
1.86 (1.07, 3.22)
ETC 50 mg BIW
1.31 (0.96, 1.78)
IFX 5 mg/kg
0.58 (0.41, 0.84)
ADM 40 mg
0.53 (0.39, 0.73)
IL-12/IL-23 inhibitors
UST 90 mg
0.55 (0.40, 0.76)
UST 45 or 90 mg
0.44 (0.33, 0.58)
IL-17 inhibitors
SEC 150 mg
0.54 (0.40, 0.75)
SEC 300 mg
0.26 (0.20, 0.35)
BRO 210 mg
0.20 (0.14, 0.29)
IXE 80 mg Q2W>Q4W
0.16 (0.11, 0.23)
BIM 320 mg Q4W>Q8W
0.11 (0.07, 0.18)
IL-23 inhibitors
TIL 100 mg
0.60 (0.43, 0.81)
TIL 200 mg
0.50 (0.36, 0.68)
GUS 100 mg
0.19 (0.14, 0.25)
RIS 150 mg
0.13 (0.08, 0.18)
0.01
0.10
1
10
100
Favors comparator
Favors DEUC 6 mg

(c)

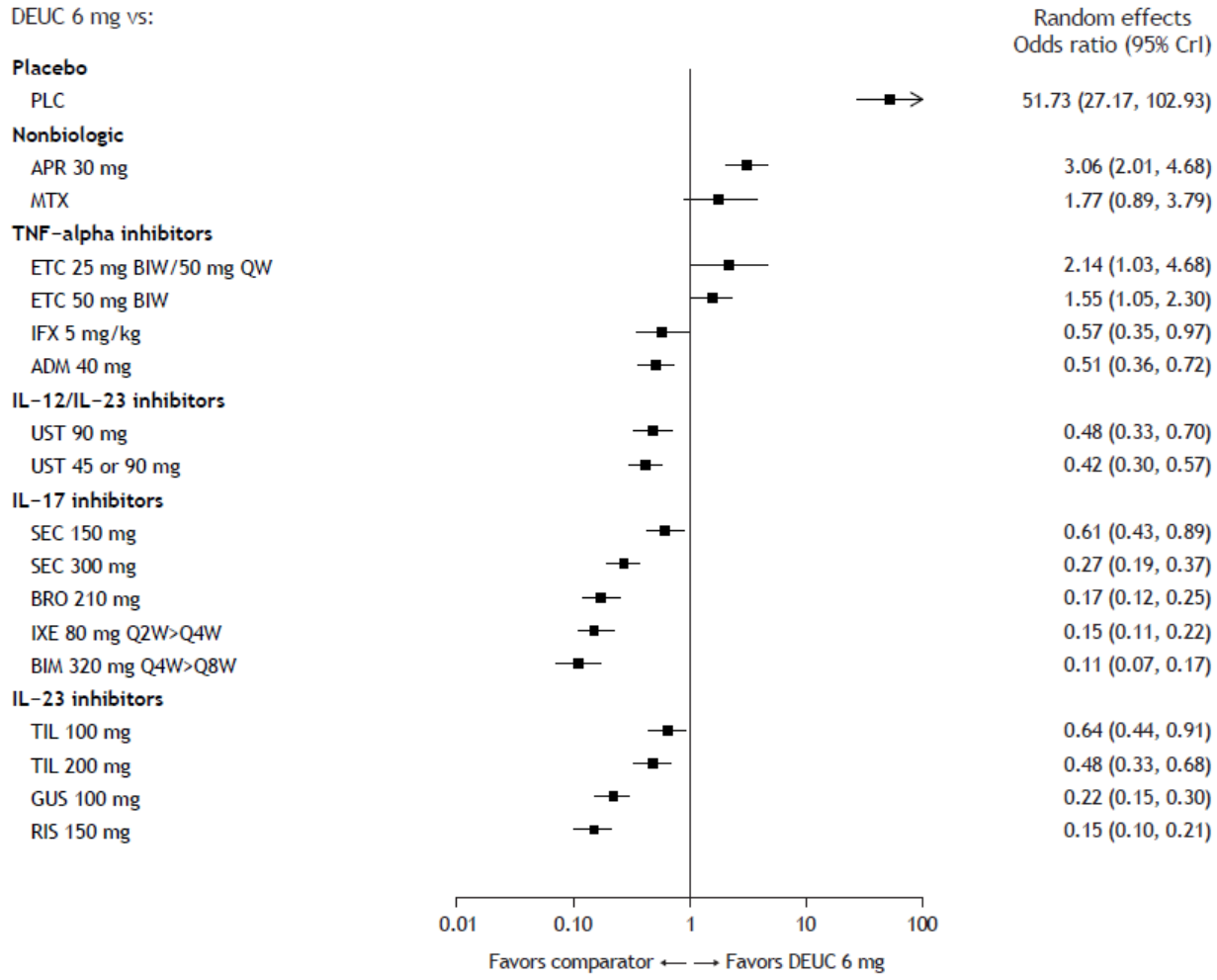
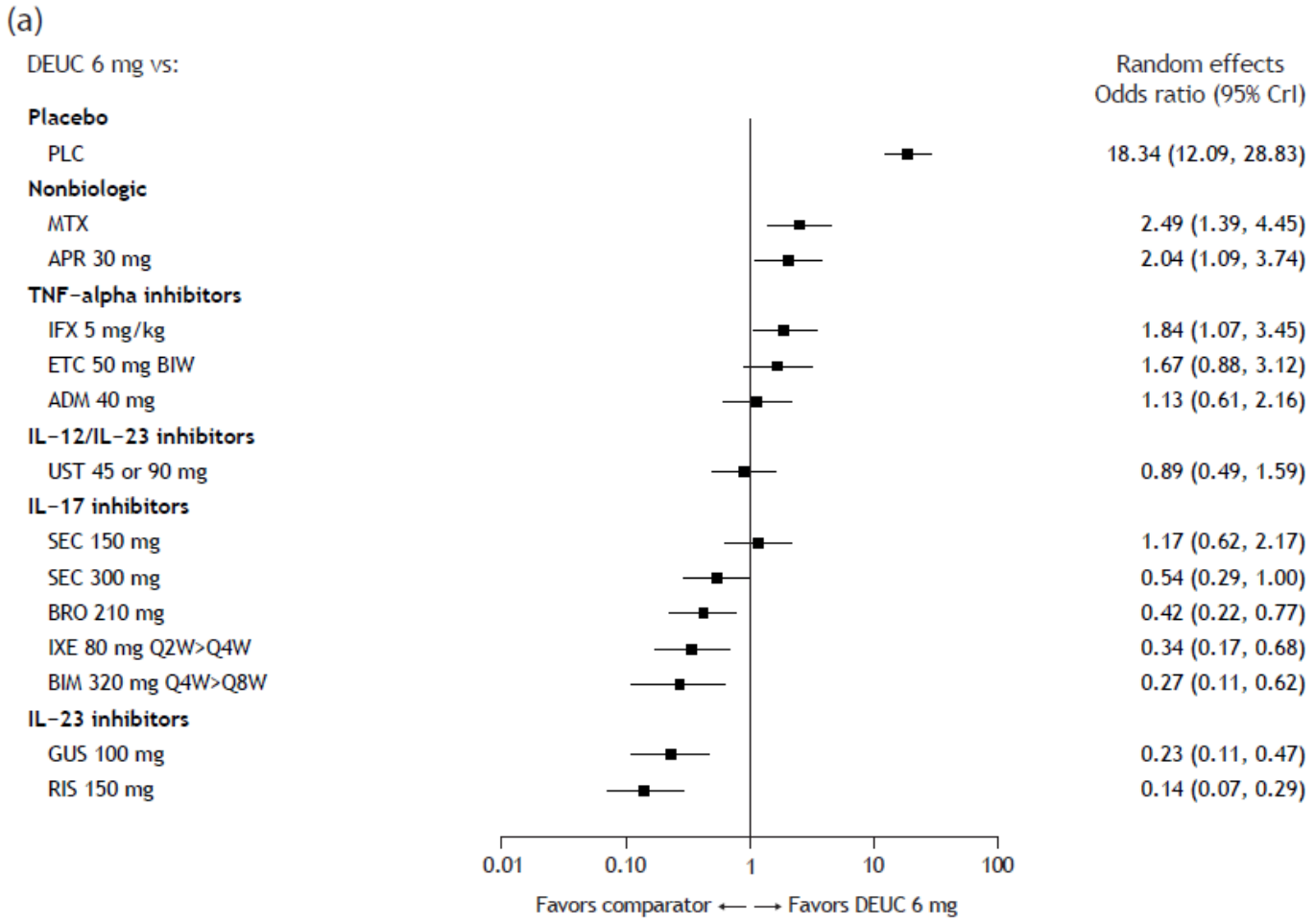

DEUC 6 mg vs:
Random effects
Odds ratio (95% CrI)
Placebo
PLC
51.73 (27.17, 102.93)
Nonbiologic
APR 30 mg
3.06 (2.01, 4.68)
MTX
1.77 (0.89, 3.79)
TNF-alpha inhibitors
ETC 25 mg BIW/50 mg QW
2.14 (1.03, 4.68)
ETC 50 mg BIW
1.55 (1.05, 2.30)
IFX 5 mg/kg
0.57 (0.35, 0.97)
ADM 40 mg
0.51 (0.36, 0.72)
IL-12/IL-23 inhibitors
UST 90 mg
0.48 (0.33, 0.70)
UST 45 or 90 mg
0.42 (0.30, 0.57)
IL-17 inhibitors
SEC 150 mg
0.61 (0.43, 0.89)
SEC 300 mg
0.27 (0.19, 0.37)
BRO 210 mg
0.17 (0.12, 0.25)
IXE 80 mg Q2W>Q4W
0.15 (0.11, 0.22)
BIM 320 mg Q4W>Q8W
0.11 (0.07, 0.17)
IL-23 inhibitors
TIL 100 mg
0.64 (0.44, 0.91)
TIL 200 mg
0.48 (0.33, 0.68)
GUS 100 mg
0.22 (0.15, 0.30)
RIS 150 mg
0.15 (0.10, 0.21)
0.01
0.10
1
10
100
Favors comparator
Favors DEUC 6 mg

Figure S4. Estimated odds ratios from the network meta-analysis for long-term (a) PASI 50, (b) PASI 90, and (c) PASI 100.

ADM adalimumab; *APR* apremilast; *BIM* bimekizumab; *BIW* twice weekly; *BRO* brodalumab; *CrI* credible interval; *DEUC* deucravacitinib; *ETC* etanercept; *GUS* guselkumab; *IFX* infliximab; *IL* interleukin; *IXE* ixekizumab; MTX methotrexate; NMA network meta-analysis; PASI Psoriasis Area and Severity Index; *PBO* placebo; *Q2W* every 2 weeks; *Q4W* once every 4 weeks; *Q8W* once every 8 weeks; *RIS* risankizumab; *SEC* secukinumab; *TIL* tildrakizumab; *TNF* tumor necrosis factor; *UST* ustekinumab



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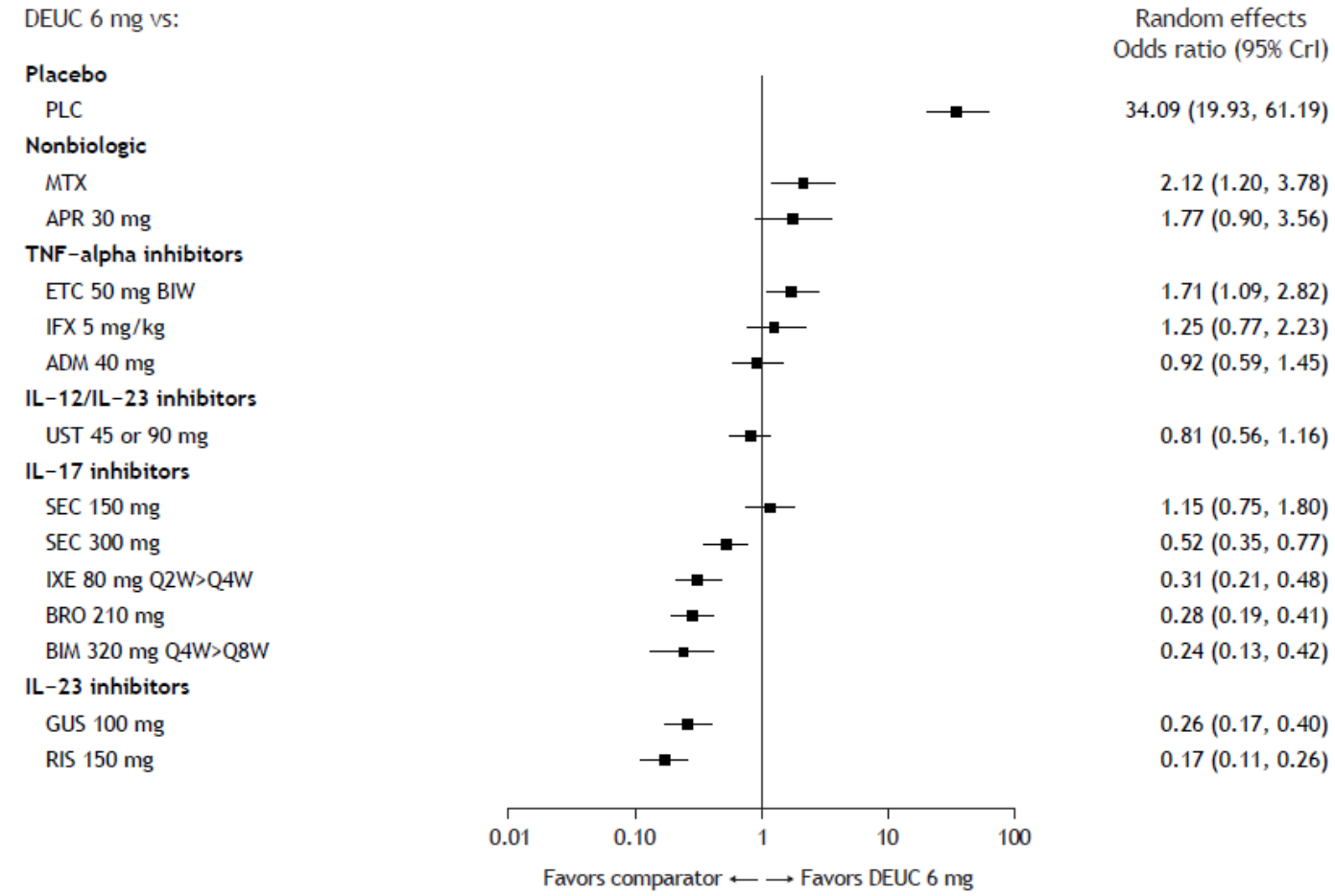

DEUC 6 mg vs:
Random effects
Odds ratio (95% CrI)
Placebo
PLC
34.09 (19.93, 61.19)
Nonbiologic
MTX
2.12 (1.20, 3.78)
APR 30 mg
1.77 (0.90, 3.56)
TNF-alpha inhibitors
ETC 50 mg BIW
1.71 (1.09, 2.82)
IFX 5 mg/kg
1.25 (0.77, 2.23)
ADM 40 mg
0.92 (0.59, 1.45)
IL-12/IL-23 inhibitors
UST 45 or 90 mg
0.81 (0.56, 1.16)
IL-17 inhibitors
SEC 150 mg
1.15 (0.75, 1.80)
SEC 300 mg
0.52 (0.35, 0.77)
IXE 80 mg Q2W>Q4W
0.31 (0.21, 0.48)
BRO 210 mg
0.28 (0.19, 0.41)
BIM 320 mg Q4W>Q8W
0.24 (0.13, 0.42)
IL-23 inhibitors
GUS 100 mg
0.26 (0.17, 0.40)
RIS 150 mg
0.17 (0.11, 0.26)
0.01
0.10
1
10
100
Favors comparator
Favors DEUC 6 mg

(c)

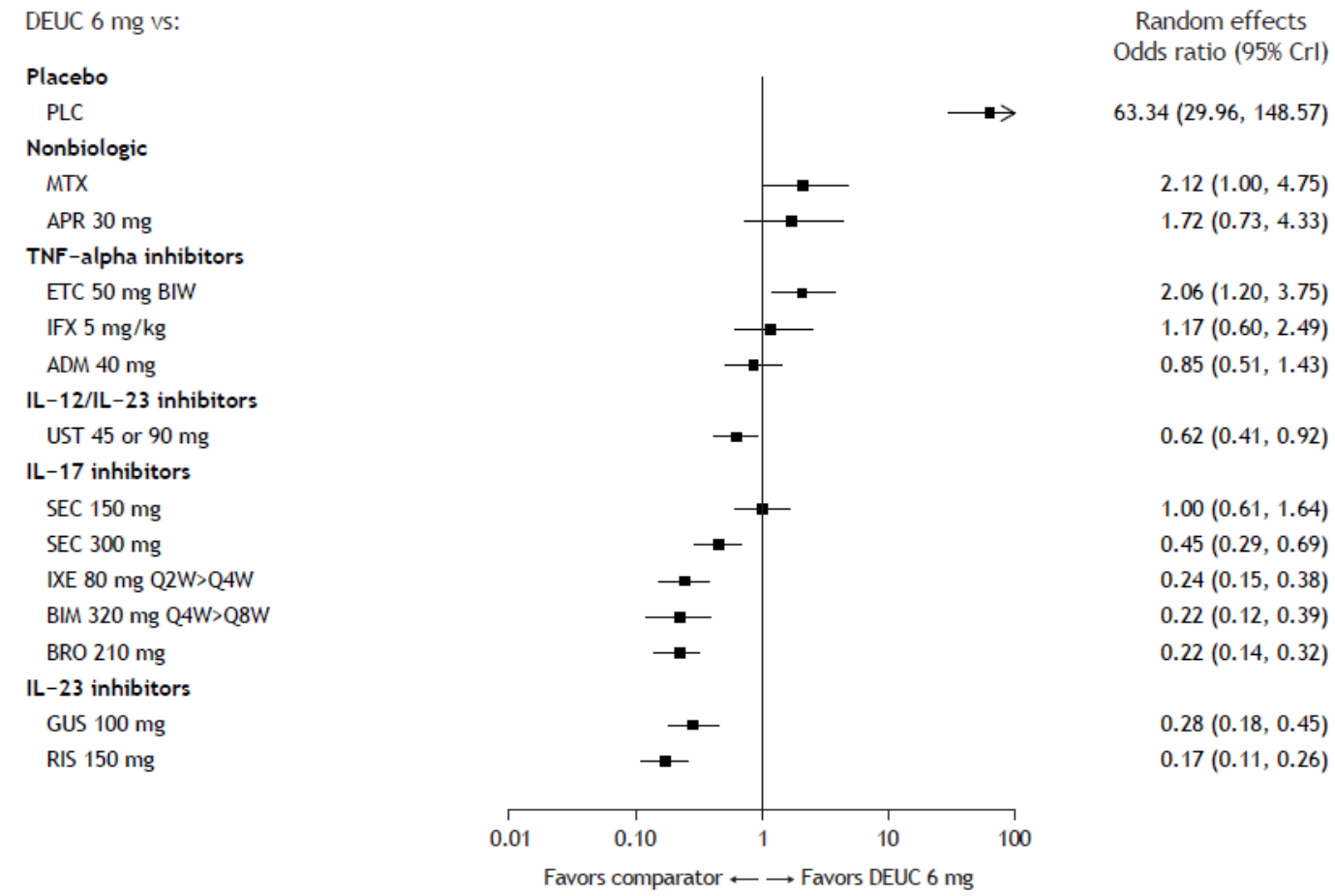
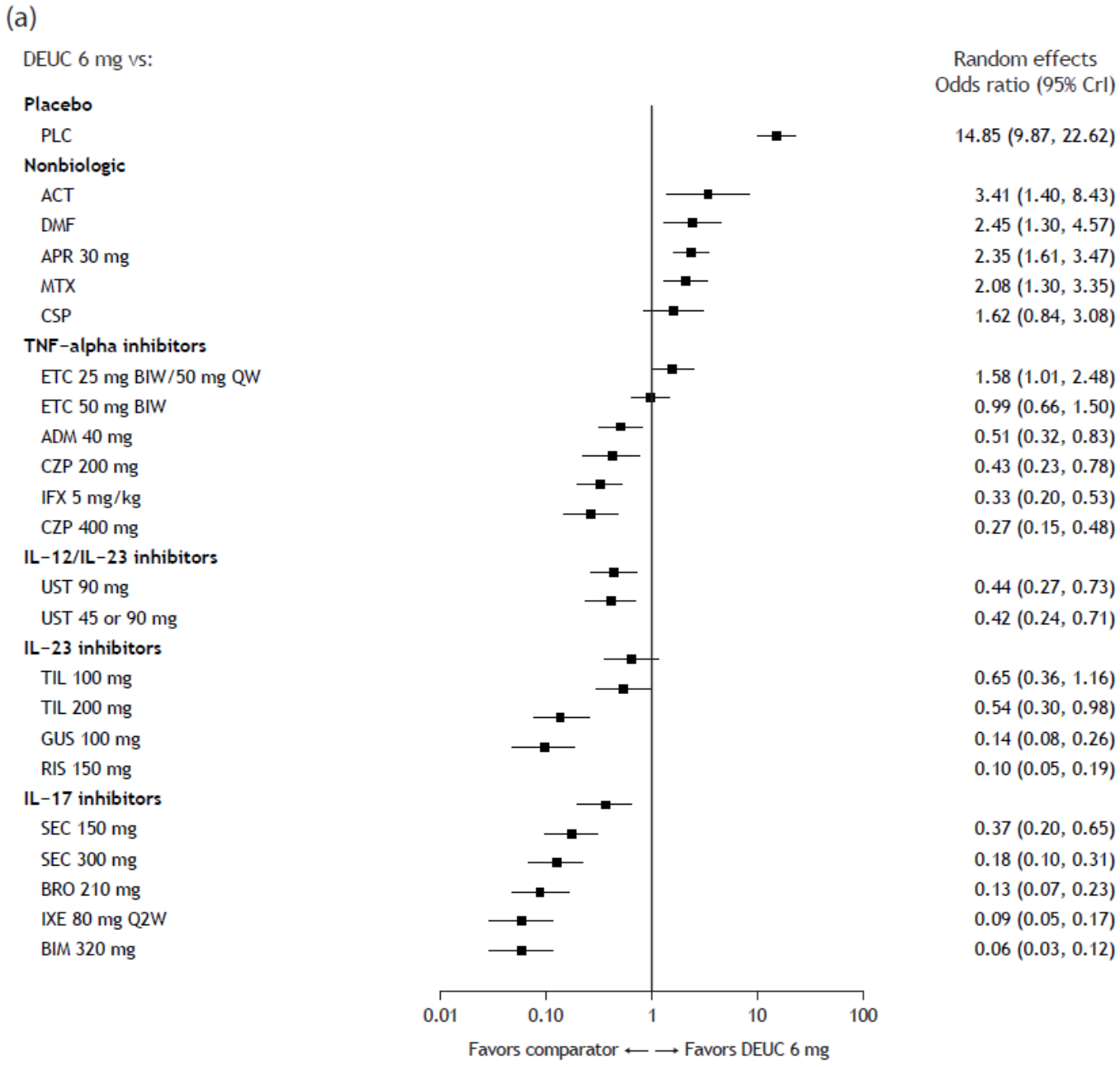
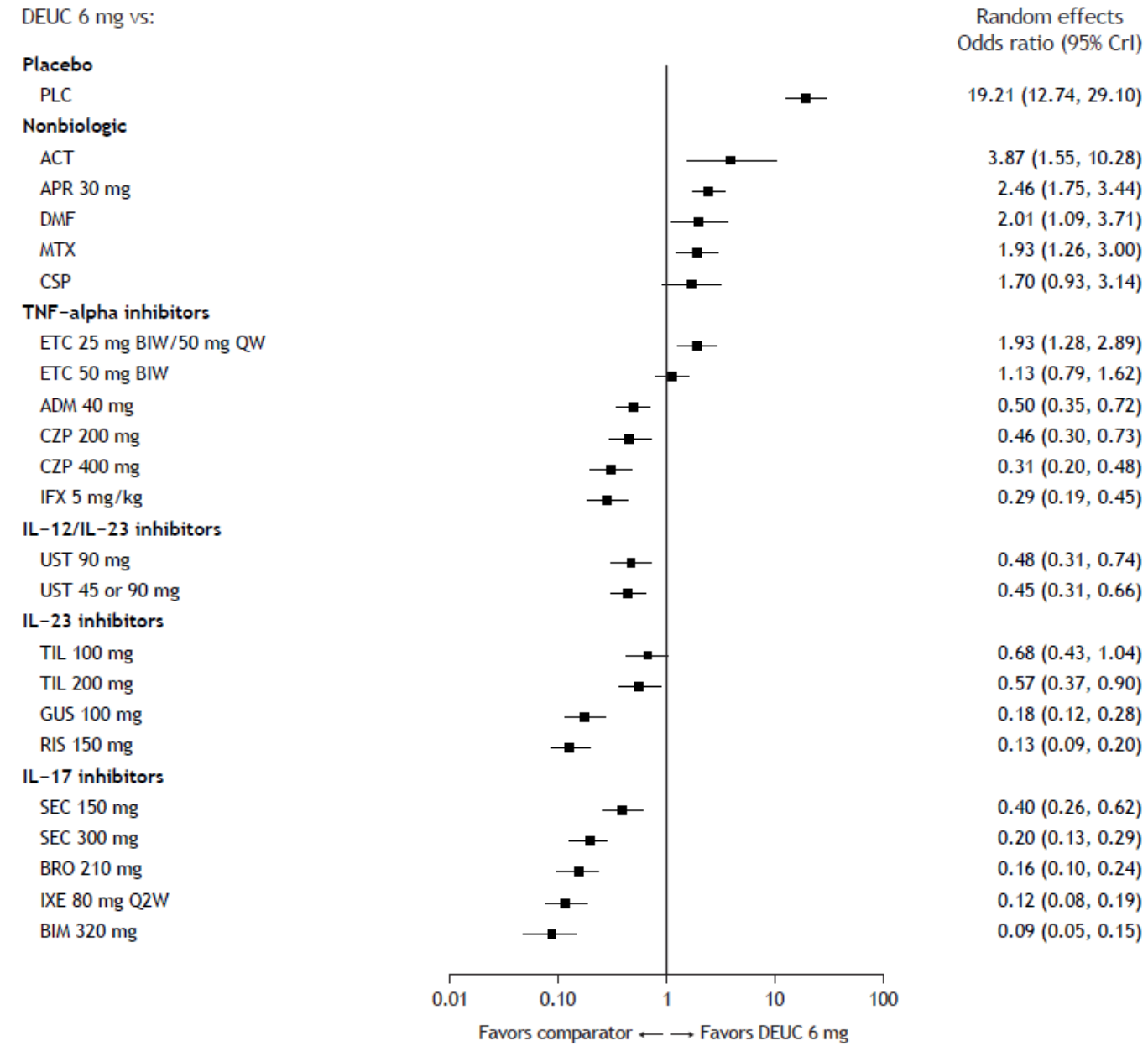

DEUC 6 mg vs:
Random effects
Odds ratio (95% CrI)
Placebo
PLC
63.34 (29.96, 148.57)
Nonbiologic
MTX
2.12 (1.00, 4.75)
APR 30 mg
1.72 (0.73, 4.33)
TNF−alpha inhibitors
ETC 50 mg BIW
2.06 (1.20, 3.75)
IFX 5 mg/kg
1.17 (0.60, 2.49)
ADM 40 mg
0.85 (0.51, 1.43)
IL−12/IL−23 inhibitors
UST 45 or 90 mg
0.62 (0.41, 0.92)
IL−17 inhibitors
SEC 150 mg
1.00 (0.61, 1.64)
SEC 300 mg
0.45 (0.29, 0.69)
IXE 80 mg Q2W>Q4W
0.24 (0.15, 0.38)
BIM 320 mg Q4W>Q8W
0.22 (0.12, 0.39)
BRO 210 mg
0.22 (0.14, 0.32)
IL−23 inhibitors
GUS 100 mg
0.28 (0.18, 0.45)
RIS 150 mg
0.17 (0.11, 0.26)
0.01
0.10
1
10
100
Favors comparator ← → Favors DEUC 6 mg

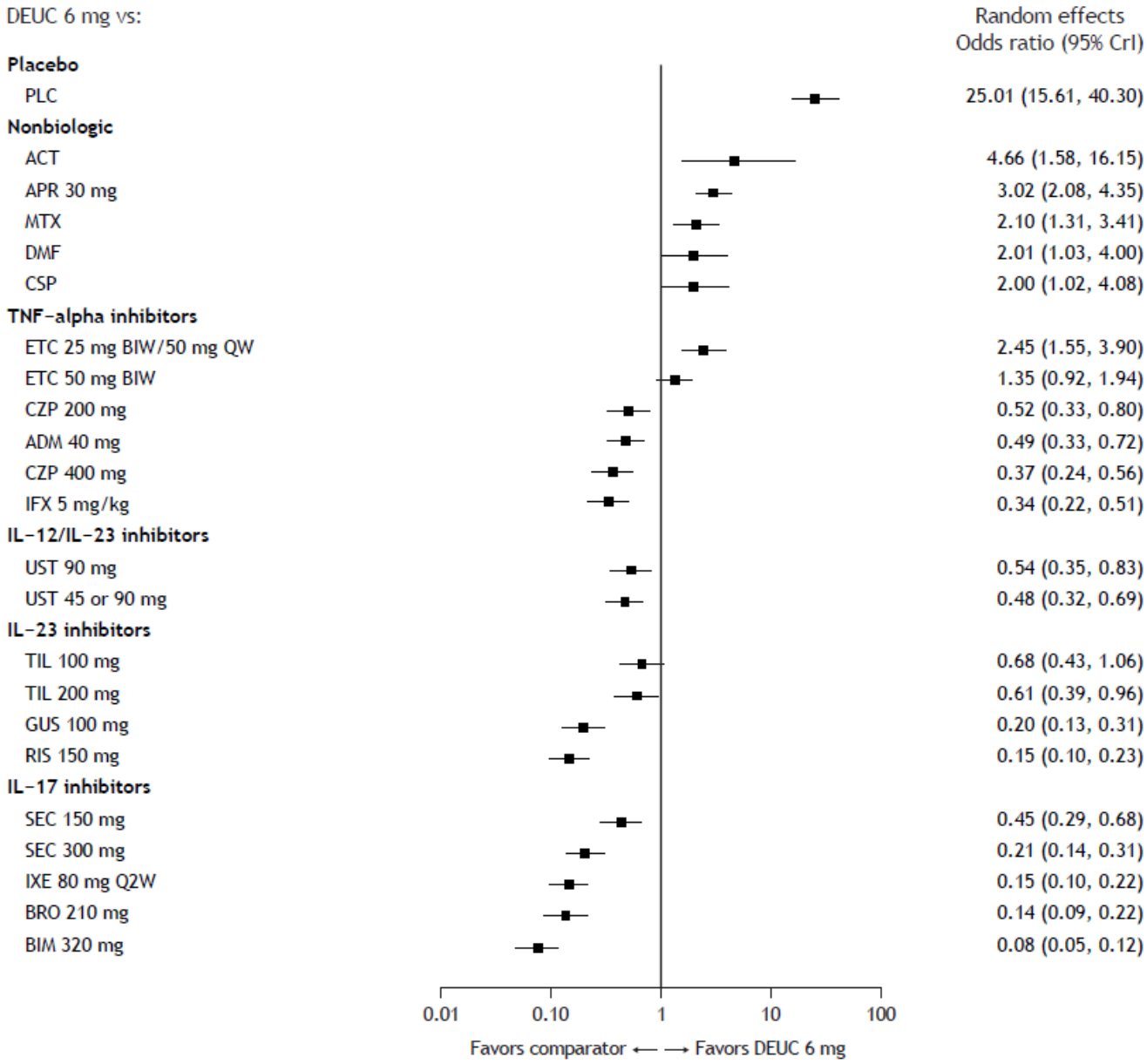
Figure S5. Sensitivity: short-term results for (a) PASI 50, (b) PASI 75, (c) PASI 90, and (d) PASI 100.



(b)


DEUC 6 mg vs:
Random effects
Odds ratio (95% CrI)
Placebo
PLC
19.21 (12.74, 29.10)
Nonbiologic
ACT
3.87 (1.55, 10.28)
APR 30 mg
2.46 (1.75, 3.44)
DMF
2.01 (1.09, 3.71)
MTX
1.93 (1.26, 3.00)
CSP
1.70 (0.93, 3.14)
TNF-alpha inhibitors
ETC 25 mg BIW/50 mg QW
1.93 (1.28, 2.89)
ETC 50 mg BIW
1.13 (0.79, 1.62)
ADM 40 mg
0.50 (0.35, 0.72)
CZP 200 mg
0.46 (0.30, 0.73)
CZP 400 mg
0.31 (0.20, 0.48)
IFX 5 mg/kg
0.29 (0.19, 0.45)
IL-12/IL-23 inhibitors
UST 90 mg
0.48 (0.31, 0.74)
UST 45 or 90 mg
0.45 (0.31, 0.66)
IL-23 inhibitors
TIL 100 mg
0.68 (0.43, 1.04)
TIL 200 mg
0.57 (0.37, 0.90)
GUS 100 mg
0.18 (0.12, 0.28)
RIS 150 mg
0.13 (0.09, 0.20)
IL-17 inhibitors
SEC 150 mg
0.40 (0.26, 0.62)
SEC 300 mg
0.20 (0.13, 0.29)
BRO 210 mg
0.16 (0.10, 0.24)
IXE 80 mg Q2W
0.12 (0.08, 0.19)
BIM 320 mg
0.09 (0.05, 0.15)
0.01
0.10
1
10
100
Favors comparator
Favors DEUC 6 mg

(c)


DEUC 6 mg vs:
Random effects
Odds ratio (95% CrI)
Placebo
PLC
25.01 (15.61, 40.30)
Nonbiologic
ACT
4.66 (1.58, 16.15)
APR 30 mg
3.02 (2.08, 4.35)
MTX
2.10 (1.31, 3.41)
DMF
2.01 (1.03, 4.00)
CSP
2.00 (1.02, 4.08)
TNF-alpha inhibitors
ETC 25 mg BIW/50 mg QW
2.45 (1.55, 3.90)
ETC 50 mg BIW
1.35 (0.92, 1.94)
CZP 200 mg
0.52 (0.33, 0.80)
ADM 40 mg
0.49 (0.33, 0.72)
CZP 400 mg
0.37 (0.24, 0.56)
IFX 5 mg/kg
0.34 (0.22, 0.51)
IL-12/IL-23 inhibitors
UST 90 mg
0.54 (0.35, 0.83)
UST 45 or 90 mg
0.48 (0.32, 0.69)
IL-23 inhibitors
TIL 100 mg
0.68 (0.43, 1.06)
TIL 200 mg
0.61 (0.39, 0.96)
GUS 100 mg
0.20 (0.13, 0.31)
RIS 150 mg
0.15 (0.10, 0.23)
IL-17 inhibitors
SEC 150 mg
0.45 (0.29, 0.68)
SEC 300 mg
0.21 (0.14, 0.31)
IXE 80 mg Q2W
0.15 (0.10, 0.22)
BRO 210 mg
0.14 (0.09, 0.22)
BIM 320 mg
0.08 (0.05, 0.12)
0.01
0.10
1
10
100
Favors comparator ⟵ ⟶ Favors DEUC 6 mg

(d)

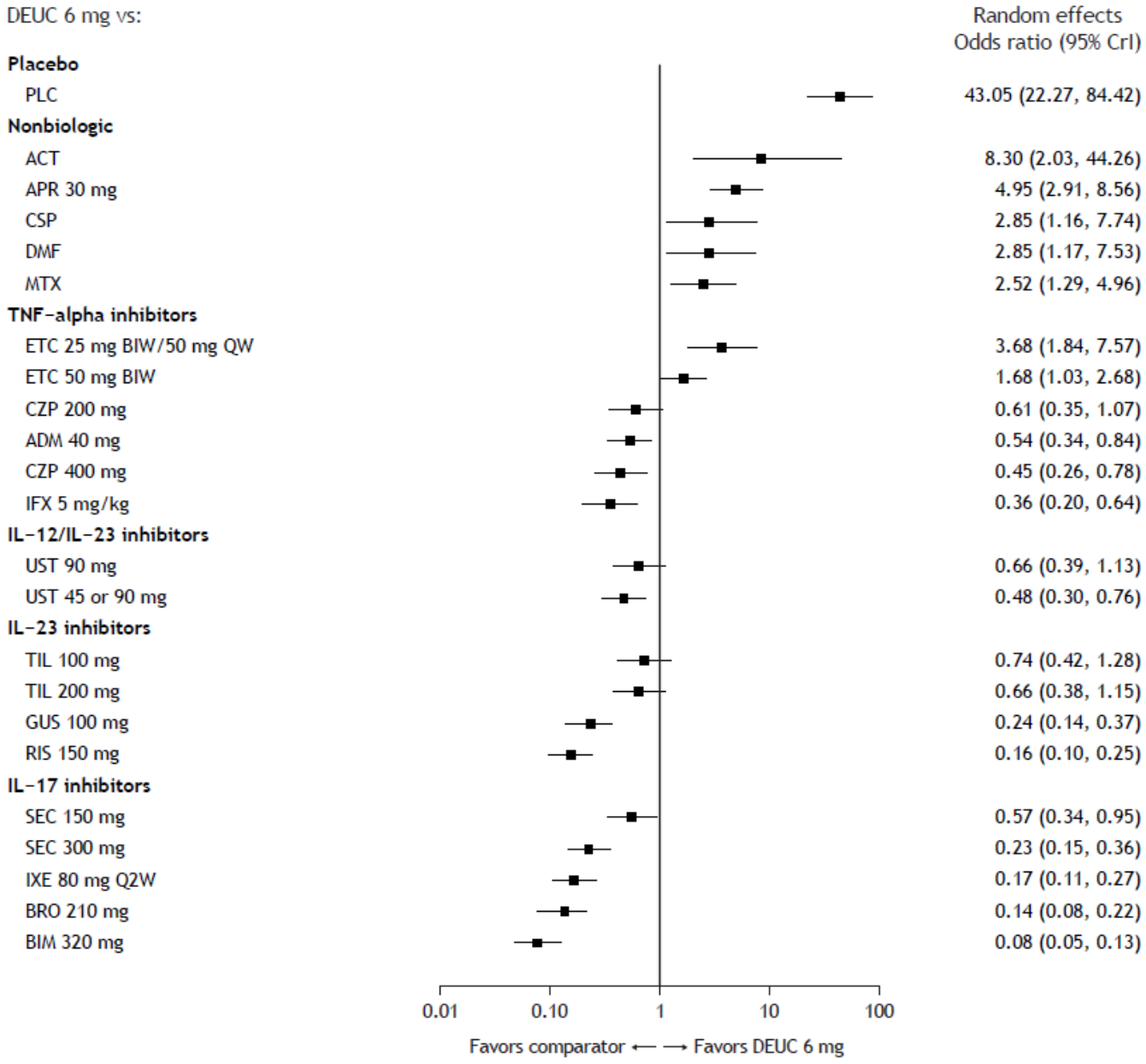
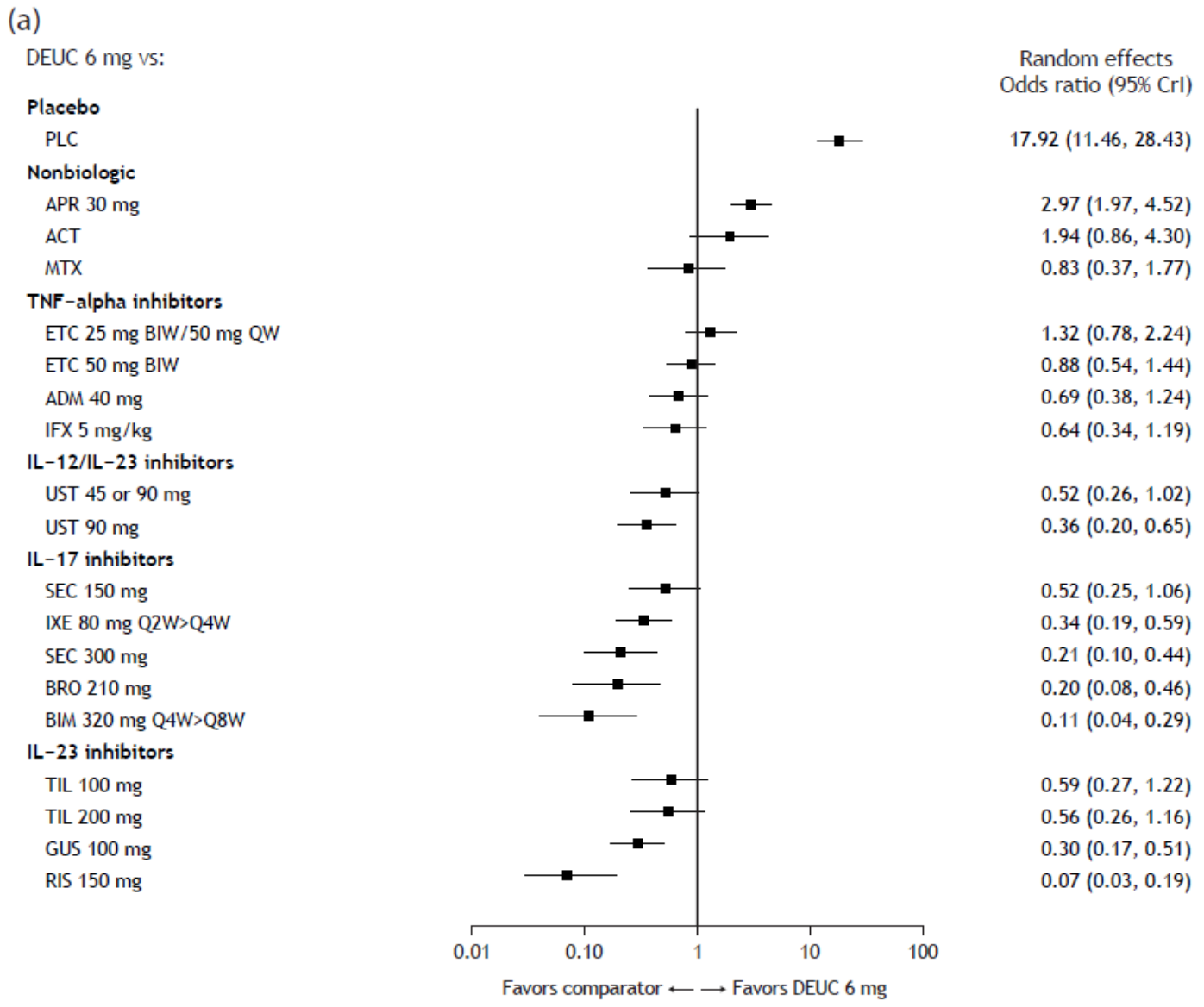
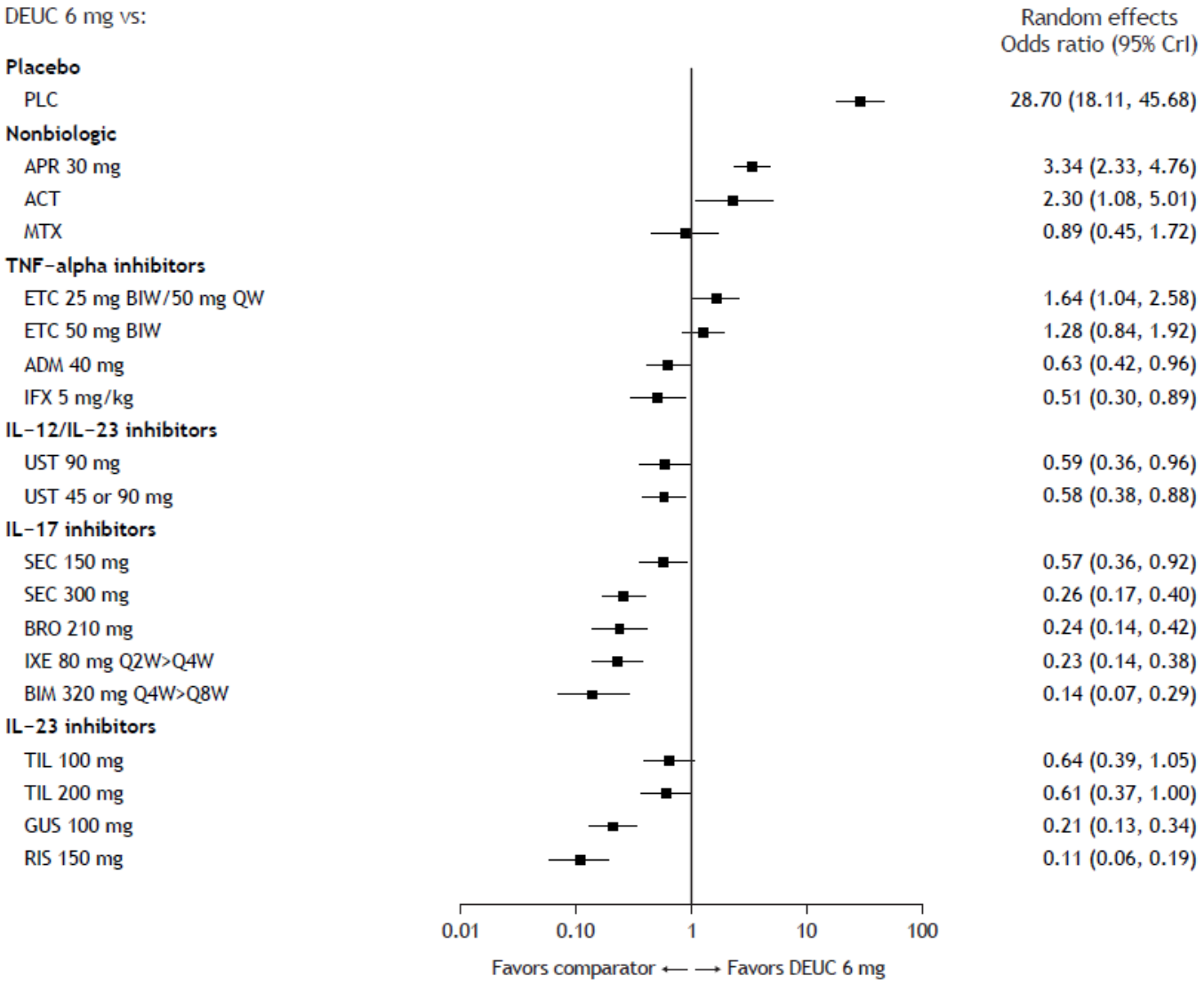

DEUC 6 mg vs:
Random effects
Odds ratio (95% CrI)
Placebo
PLC
43.05 (22.27, 84.42)
Nonbiologic
ACT
8.30 (2.03, 44.26)
APR 30 mg
4.95 (2.91, 8.56)
CSP
2.85 (1.16, 7.74)
DMF
2.85 (1.17, 7.53)
MTX
2.52 (1.29, 4.96)
TNF-alpha inhibitors
ETC 25 mg BIW/50 mg QW
3.68 (1.84, 7.57)
ETC 50 mg BIW
1.68 (1.03, 2.68)
CZP 200 mg
0.61 (0.35, 1.07)
ADM 40 mg
0.54 (0.34, 0.84)
CZP 400 mg
0.45 (0.26, 0.78)
IFX 5 mg/kg
0.36 (0.20, 0.64)
IL-12/IL-23 inhibitors
UST 90 mg
0.66 (0.39, 1.13)
UST 45 or 90 mg
0.48 (0.30, 0.76)
IL-23 inhibitors
TIL 100 mg
0.74 (0.42, 1.28)
TIL 200 mg
0.66 (0.38, 1.15)
GUS 100 mg
0.24 (0.14, 0.37)
RIS 150 mg
0.16 (0.10, 0.25)
IL-17 inhibitors
SEC 150 mg
0.57 (0.34, 0.95)
SEC 300 mg
0.23 (0.15, 0.36)
IXE 80 mg Q2W
0.17 (0.11, 0.27)
BRO 210 mg
0.14 (0.08, 0.22)
BIM 320 mg
0.08 (0.05, 0.13)
0.01
0.10
1
10
100
Favors comparator
Favors DEUC 6 mg

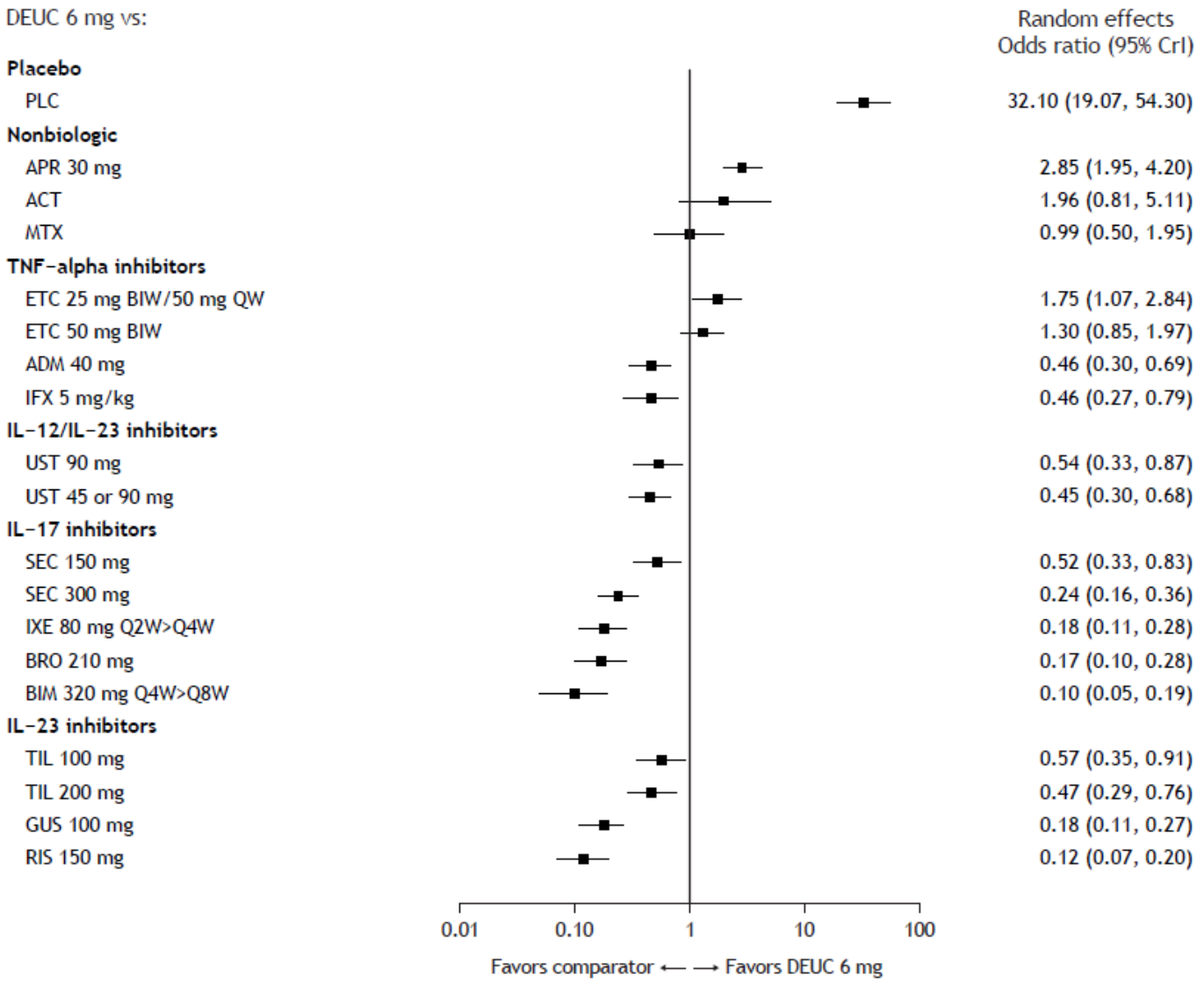
Figure S6. Sensitivity: mid-term results for (a) PASI 50, (b) PASI 75, (c) PASI 90, and (d) PASI 100.



(b)


DEUC 6 mg vs:
Random effects
Odds ratio (95% CrI)
Placebo
PLC
28.70 (18.11, 45.68)
Nonbiologic
APR 30 mg
3.34 (2.33, 4.76)
ACT
2.30 (1.08, 5.01)
MTX
0.89 (0.45, 1.72)
TNF-alpha inhibitors
ETC 25 mg BIW/50 mg QW
1.64 (1.04, 2.58)
ETC 50 mg BIW
1.28 (0.84, 1.92)
ADM 40 mg
0.63 (0.42, 0.96)
IFX 5 mg/kg
0.51 (0.30, 0.89)
IL-12/IL-23 inhibitors
UST 90 mg
0.59 (0.36, 0.96)
UST 45 or 90 mg
0.58 (0.38, 0.88)
IL-17 inhibitors
SEC 150 mg
0.57 (0.36, 0.92)
SEC 300 mg
0.26 (0.17, 0.40)
BRO 210 mg
0.24 (0.14, 0.42)
IXE 80 mg Q2W>Q4W
0.23 (0.14, 0.38)
BIM 320 mg Q4W>Q8W
0.14 (0.07, 0.29)
IL-23 inhibitors
TIL 100 mg
0.64 (0.39, 1.05)
TIL 200 mg
0.61 (0.37, 1.00)
GUS 100 mg
0.21 (0.13, 0.34)
RIS 150 mg
0.11 (0.06, 0.19)
0.01
0.10
1
10
100
Favors comparator
Favors DEUC 6 mg

(c)


DEUC 6 mg vs:
Random effects
Odds ratio (95% CrI)
Placebo
PLC
32.10 (19.07, 54.30)
Nonbiologic
APR 30 mg
2.85 (1.95, 4.20)
ACT
1.96 (0.81, 5.11)
MTX
0.99 (0.50, 1.95)
TNF−alpha inhibitors
ETC 25 mg BIW/50 mg QW
1.75 (1.07, 2.84)
ETC 50 mg BIW
1.30 (0.85, 1.97)
ADM 40 mg
0.46 (0.30, 0.69)
IFX 5 mg/kg
0.46 (0.27, 0.79)
IL−12/IL−23 inhibitors
UST 90 mg
0.54 (0.33, 0.87)
UST 45 or 90 mg
0.45 (0.30, 0.68)
IL−17 inhibitors
SEC 150 mg
0.52 (0.33, 0.83)
SEC 300 mg
0.24 (0.16, 0.36)
IXE 80 mg Q2W>Q4W
0.18 (0.11, 0.28)
BRO 210 mg
0.17 (0.10, 0.28)
BIM 320 mg Q4W>Q8W
0.10 (0.05, 0.19)
IL−23 inhibitors
TIL 100 mg
0.57 (0.35, 0.91)
TIL 200 mg
0.47 (0.29, 0.76)
GUS 100 mg
0.18 (0.11, 0.27)
RIS 150 mg
0.12 (0.07, 0.20)
0.01
0.10
1
10
100
Favors comparator ← → Favors DEUC 6 mg

(d)

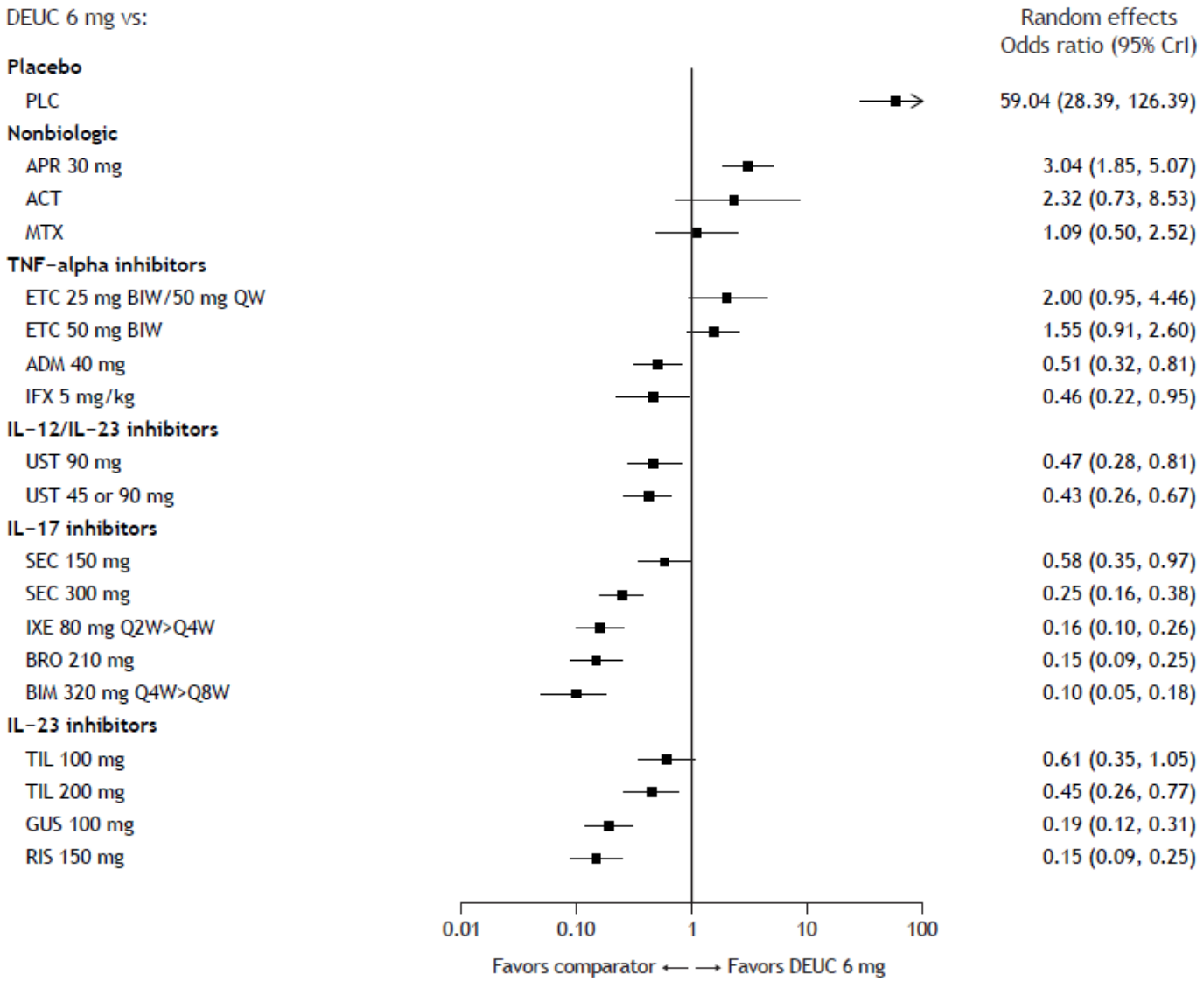
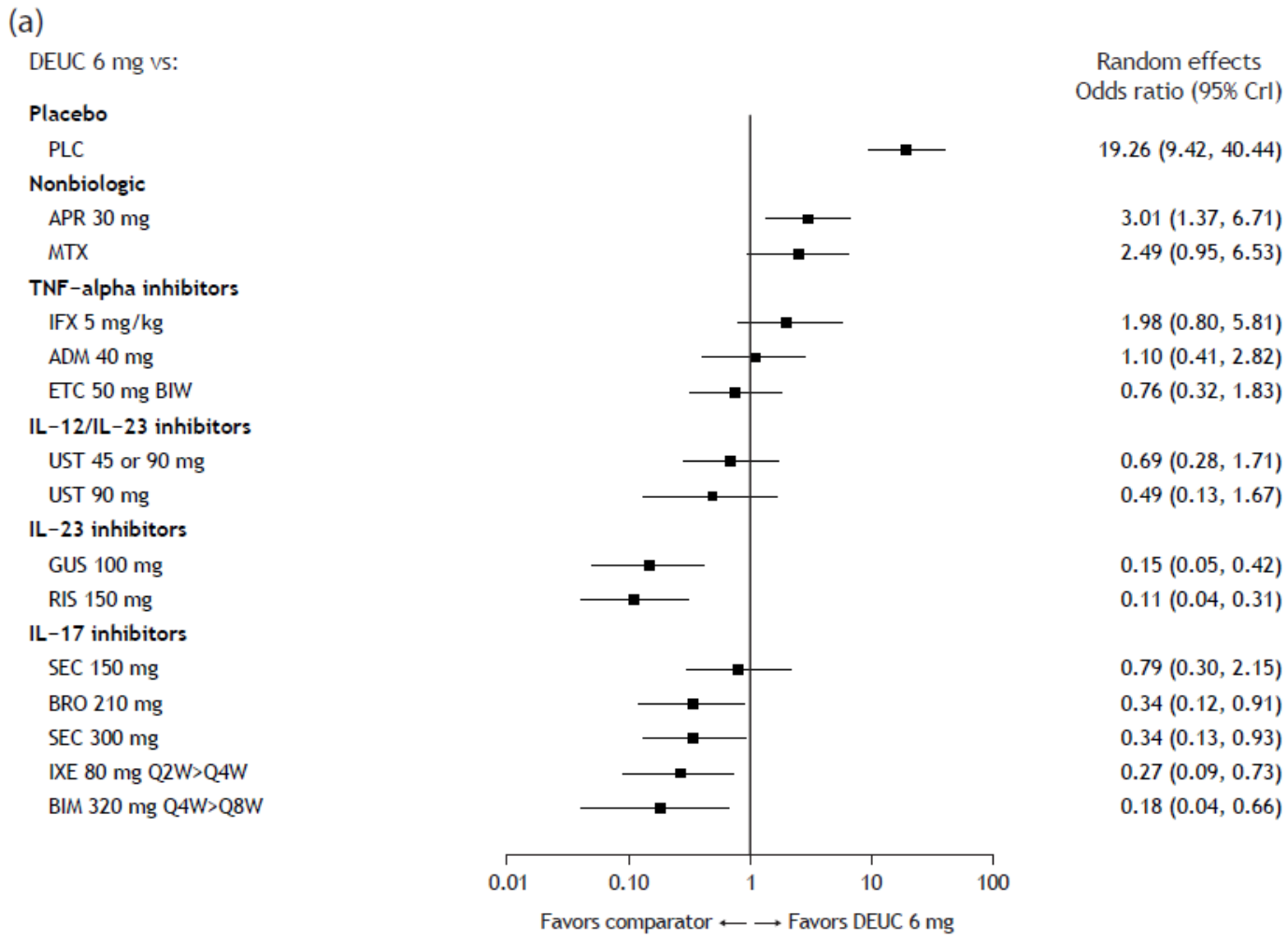
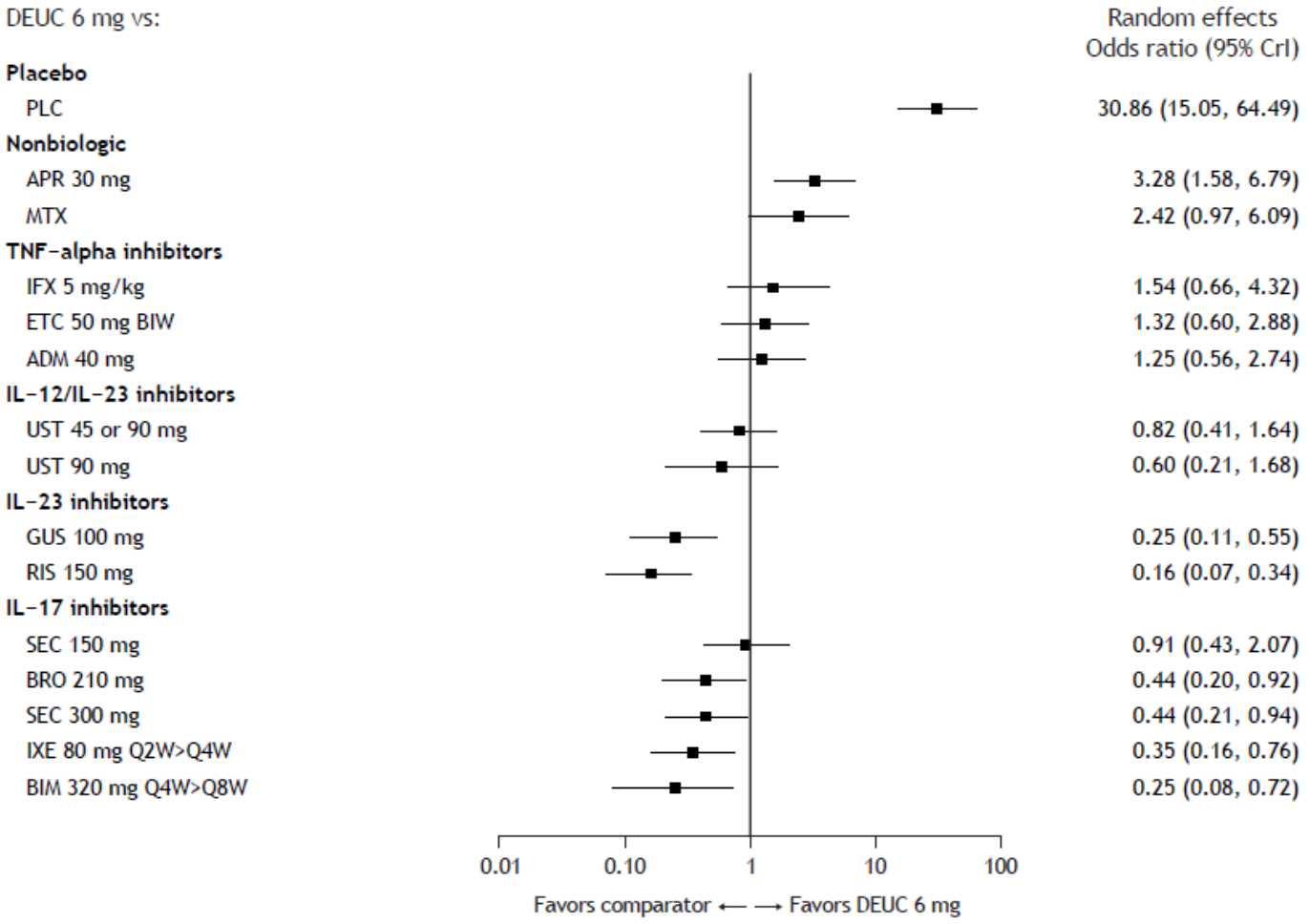

DEUC 6 mg vs:
Random effects
Odds ratio (95% CrI)
Placebo
PLC
59.04 (28.39, 126.39)
Nonbiologic
APR 30 mg
3.04 (1.85, 5.07)
ACT
2.32 (0.73, 8.53)
MTX
1.09 (0.50, 2.52)
TNF−alpha inhibitors
ETC 25 mg BIW/50 mg QW
2.00 (0.95, 4.46)
ETC 50 mg BIW
1.55 (0.91, 2.60)
ADM 40 mg
0.51 (0.32, 0.81)
IFX 5 mg/kg
0.46 (0.22, 0.95)
IL−12/IL−23 inhibitors
UST 90 mg
0.47 (0.28, 0.81)
UST 45 or 90 mg
0.43 (0.26, 0.67)
IL−17 inhibitors
SEC 150 mg
0.58 (0.35, 0.97)
SEC 300 mg
0.25 (0.16, 0.38)
IXE 80 mg Q2W>Q4W
0.16 (0.10, 0.26)
BRO 210 mg
0.15 (0.09, 0.25)
BIM 320 mg Q4W>Q8W
0.10 (0.05, 0.18)
IL−23 inhibitors
TIL 100 mg
0.61 (0.35, 1.05)
TIL 200 mg
0.45 (0.26, 0.77)
GUS 100 mg
0.19 (0.12, 0.31)
RIS 150 mg
0.15 (0.09, 0.25)
0.01
0.10
1
10
100
Favors comparator
Favors DEUC 6 mg

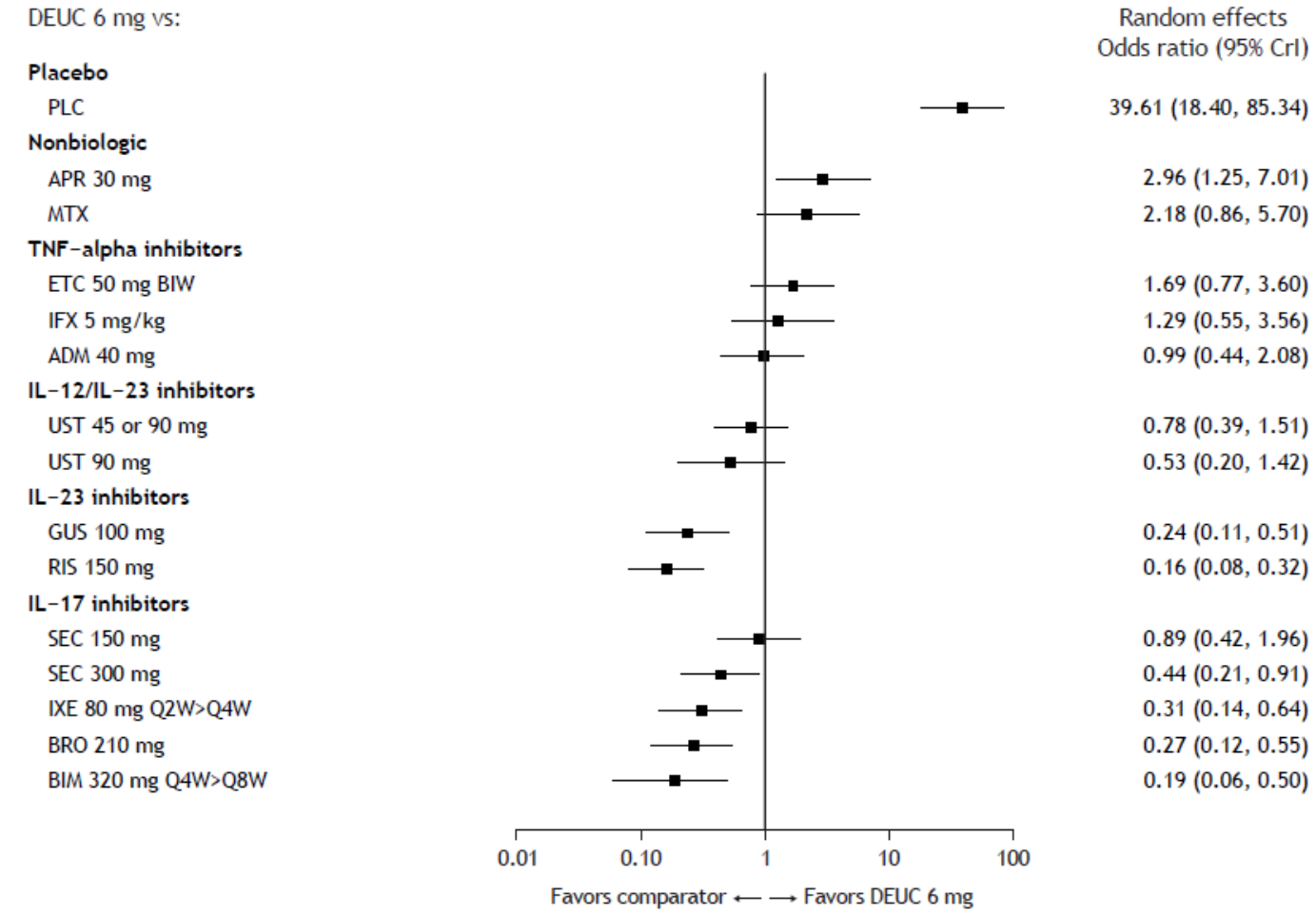
Figure S7. Sensitivity: long-term results for (a) PASI 50, (b) PASI 75, (c) PASI 90, and (d) PASI 100.



(b)


DEUC 6 mg vs:
Random effects
Odds ratio (95% CrI)
Placebo
PLC
30.86 (15.05, 64.49)
Nonbiologic
APR 30 mg
3.28 (1.58, 6.79)
MTX
2.42 (0.97, 6.09)
TNF−alpha inhibitors
IFX 5 mg/kg
1.54 (0.66, 4.32)
ETC 50 mg BIW
1.32 (0.60, 2.88)
ADM 40 mg
1.25 (0.56, 2.74)
IL−12/IL−23 inhibitors
UST 45 or 90 mg
0.82 (0.41, 1.64)
UST 90 mg
0.60 (0.21, 1.68)
IL−23 inhibitors
GUS 100 mg
0.25 (0.11, 0.55)
RIS 150 mg
0.16 (0.07, 0.34)
IL−17 inhibitors
SEC 150 mg
0.91 (0.43, 2.07)
BRO 210 mg
0.44 (0.20, 0.92)
SEC 300 mg
0.44 (0.21, 0.94)
IXE 80 mg Q2W>Q4W
0.35 (0.16, 0.76)
BIM 320 mg Q4W>Q8W
0.25 (0.08, 0.72)
0.01
0.10
1
10
100
Favors comparator
Favors DEUC 6 mg

(c)


DEUC 6 mg vs:
Random effects
Odds ratio (95% CrI)
Placebo
PLC
39.61 (18.40, 85.34)
Nonbiologic
APR 30 mg
2.96 (1.25, 7.01)
MTX
2.18 (0.86, 5.70)
TNF−alpha inhibitors
ETC 50 mg BIW
1.69 (0.77, 3.60)
IFX 5 mg/kg
1.29 (0.55, 3.56)
ADM 40 mg
0.99 (0.44, 2.08)
IL−12/IL−23 inhibitors
UST 45 or 90 mg
0.78 (0.39, 1.51)
UST 90 mg
0.53 (0.20, 1.42)
IL−23 inhibitors
GUS 100 mg
0.24 (0.11, 0.51)
RIS 150 mg
0.16 (0.08, 0.32)
IL−17 inhibitors
SEC 150 mg
0.89 (0.42, 1.96)
SEC 300 mg
0.44 (0.21, 0.91)
IXE 80 mg Q2W>Q4W
0.31 (0.14, 0.64)
BRO 210 mg
0.27 (0.12, 0.55)
BIM 320 mg Q4W>Q8W
0.19 (0.06, 0.50)
0.01
0.10
1
10
100
Favors comparator
Favors DEUC 6 mg

(d)

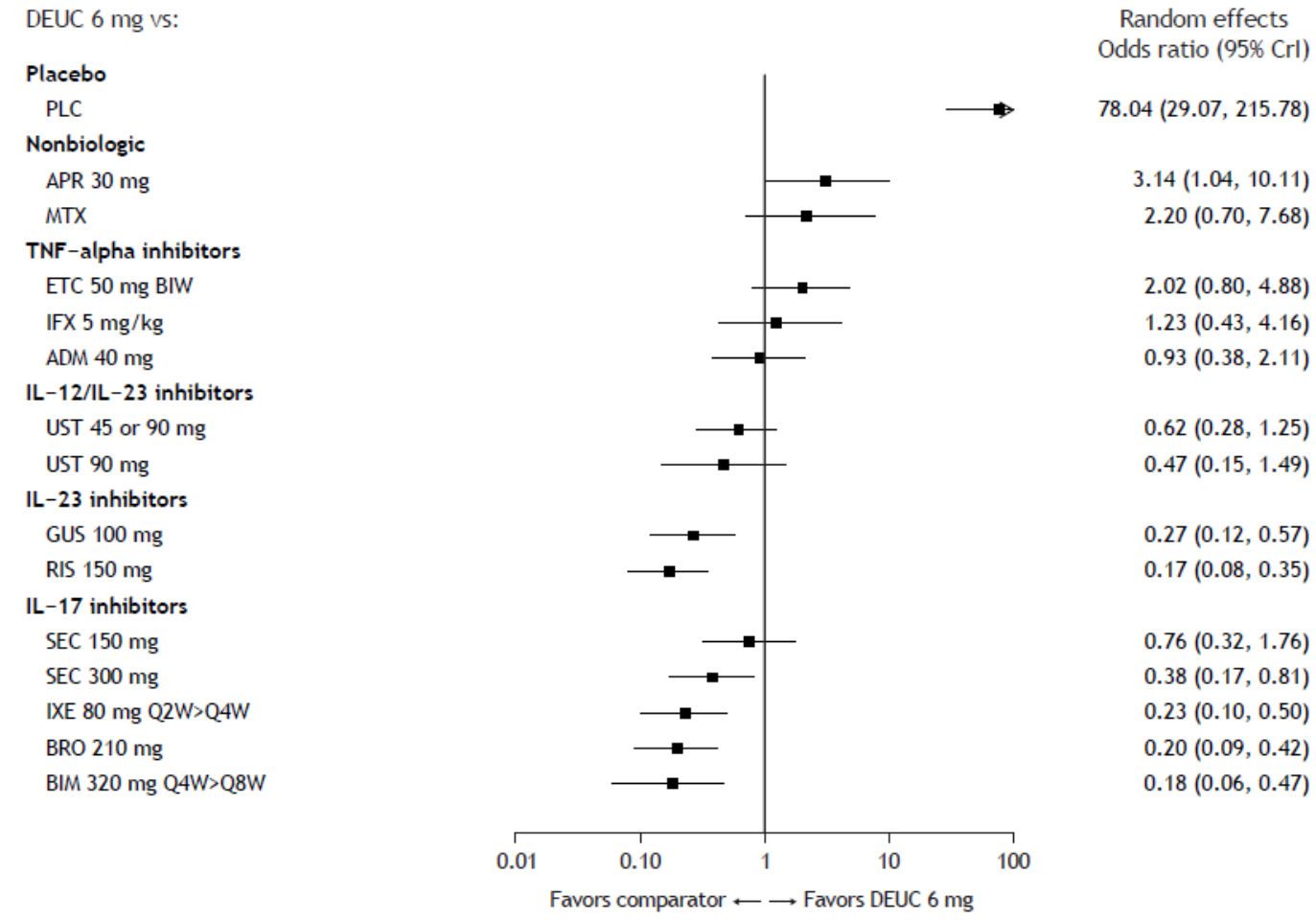

DEUC 6 mg vs:
Random effects
Odds ratio (95% CrI)
Placebo
PLC
78.04 (29.07, 215.78)
Nonbiologic
APR 30 mg
3.14 (1.04, 10.11)
MTX
2.20 (0.70, 7.68)
TNF−alpha inhibitors
ETC 50 mg BIW
2.02 (0.80, 4.88)
IFX 5 mg/kg
1.23 (0.43, 4.16)
ADM 40 mg
0.93 (0.38, 2.11)
IL−12/IL−23 inhibitors
UST 45 or 90 mg
0.62 (0.28, 1.25)
UST 90 mg
0.47 (0.15, 1.49)
IL−23 inhibitors
GUS 100 mg
0.27 (0.12, 0.57)
RIS 150 mg
0.17 (0.08, 0.35)
IL−17 inhibitors
SEC 150 mg
0.76 (0.32, 1.76)
SEC 300 mg
0.38 (0.17, 0.81)
IXE 80 mg Q2W>Q4W
0.23 (0.10, 0.50)
BRO 210 mg
0.20 (0.09, 0.42)
BIM 320 mg Q4W>Q8W
0.18 (0.06, 0.47)
0.01
0.10
1
10
100
Favors comparator
Favors DEUC 6 mg

Figure S8. Main analysis: PASI 75 at a short-term time point (10–16 weeks) in patients who were biologic naïve.

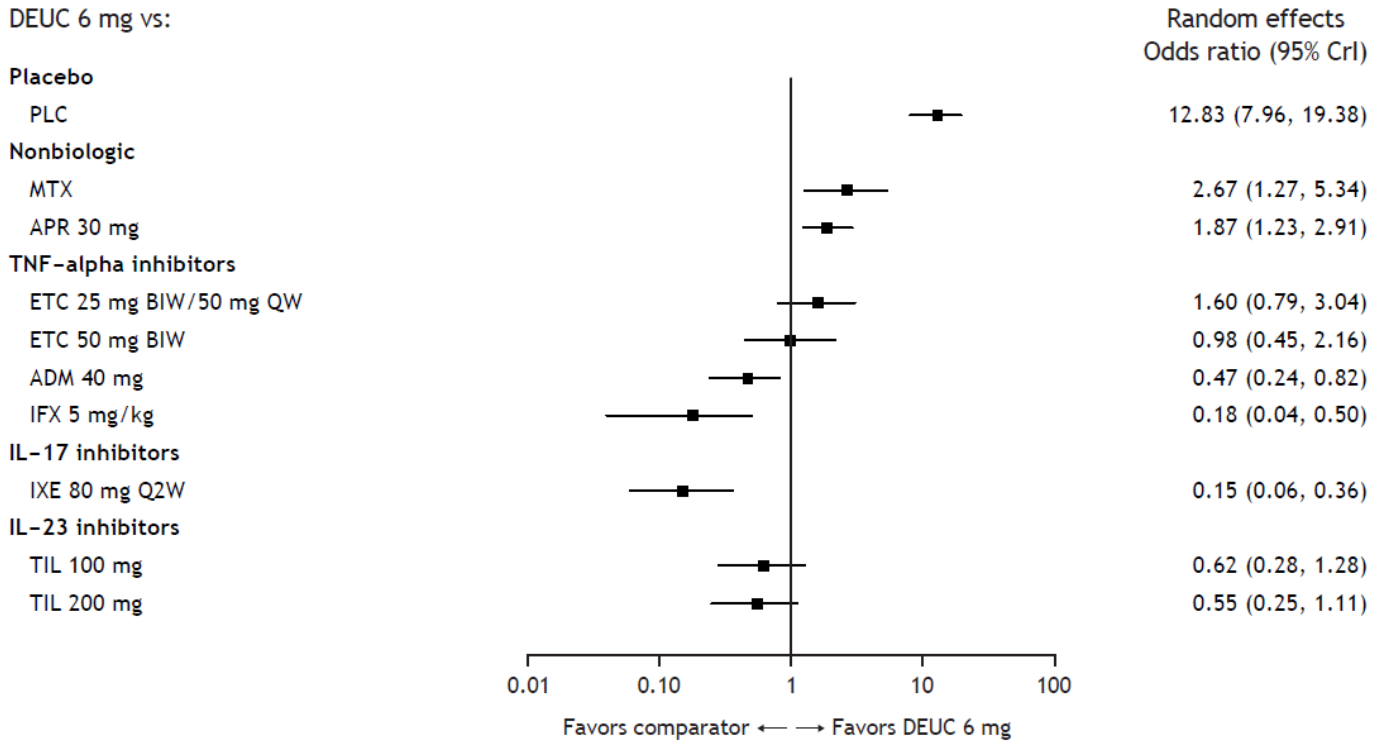


Table S1. PRISMA checklist.

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review. Described as network meta-analysis	Pg 1
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Pg 3-4
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Pg 5
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Pg 5-6
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Pg 6-7; Supplementary Table S2
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	Supplementary Table S1
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Supplementary Table S1
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	Pg 6-7
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	Pg 6-8
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (eg, for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	Pg 7-8
	10b	List and define all other variables for which data were sought (eg, participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	Pg 8-9
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	Pg 11
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	Pg 9-11
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	Pg 8-9
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	Pg 10-11
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	Pg 9-11
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	Pg 9-11

Section and Topic	Item #	Checklist item	Location where item is reported
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	Pg 8-10
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	Pg 11
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	Pg 11
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	Pg 9-11
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	Pg 11, Supplementary Figure S1
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	Supplementary Figure S1
Study characteristics	17	Cite each included study and present its characteristics.	Supplementary Table S3
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	Pg 14; Supplementary Table S10
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	Pgs 11-14, Figures 1-4, Supplementary eTables 4-6, Supplementary Figures S2-10
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	Pg 14
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	Pgs 12-14, Figures 1-4, Supplementary Tables S4-6, Supplementary Figures S2-10
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	Pg 13-14, Supplementary Figures S5-10
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	Pg 14, Supplementary Figures S5-7
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	Pg 14
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	Pgs 12-14, Figures 1-4, Supplementary Tables S4-6, Supplementary Figures S2-10
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Pg 14-17
	23b	Discuss any limitations of the evidence included in the review.	Pg 16-17
	23c	Discuss any limitations of the review processes used.	Pg 16-17

Section and Topic	Item #	Checklist item	Location where item is reported
	23d	Discuss implications of the results for practice, policy, and future research.	Pg 17-18
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	NA
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Pg 6
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	NA
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	Pg 21
Competing interests	26	Declare any competing interests of review authors.	Pg 22-23
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	Pg 6

Table S2. Search strategies.

Search Number	Search Terms	Results
Medline (via OvidSP) Search Strategy		
1	exp psoriasis/ or psoria$.ti,ab.	59,003
2	BMS-986165.ti,ab.	6
3	exp certolizumab pegol/ or (certolizumab pegol or Cimzia or CDP870 or CDP-870).ti,ab.	1121
4	exp adalimumab/ or (adalimumab$ or Humira or d2e7).ti,ab.	9395
5	exp etanercept/ or (etanercept$ or Enbrel or Embrel or Benepali).ti,ab.	9072
6	exp brodalumab/ or (brodalumab or Siliq or Kyntheum or KHK4827 or KHK-4827 or AMG-827 or AMG827).ti,ab.	356
7	exp ixekizumab/ or (ixekizumab or Taltz or ly2439821 or ly-2439821).ti,ab.	646
8	exp secukinumab/ or (secukinumab or Cosentyx or ain457 or ain-457).ti,ab.	1322
9	exp guselkumab/ or (guselkumab or Tremfya or cnto-1959 or cnto1959).ti,ab.	305
10	exp ustekinumab/ or (ustekinumab or Stelara or cnto-1275 or cnto1275).ti,ab.	2400
11	exp tildrakizumab/ or (tildrakizumab or Ilumya or Ilumetri or mk-3222 or mk3222 or sch-900222 or sch900222).ti,ab.	155
12	exp risankizumab/ or (risankizumab or bi 655066 or bi655066 or abbv-066 or abbv066).ti,ab.	190
13	exp bimekizumab/ or (bimekizumab or UCB4940 or UCB-4940).ti,ab.	55
14	exp infliximab/ or (infliximab or Remicade or Renflexis or Inflectra or ca2).ti,ab.	167,855
15	exp apremilast/ or (apremilast or Otezla or cc-10004 or cc10004).ti,ab.	759
16	exp interleukin 23p19/ or (interleukin 23p19 or interleukin23p19 or interleukin-23p19 or IL-23p19 or IL-23 p19).ti,ab.	619
17	exp methotrexate/ or methotrexate.ti,ab.	56,646
18	exp cyclosporine/ or cyclosporine.ti,ab.	46,688
19	exp fumaric acid dimethyl ester/ or dimethyl fumarate.ti,ab.	1153
20	exp etretin/ or (acitretin or Soriatane or Neotigason).ti,ab.	1850
21	interleukin.mp.	369,471
22	biologic$.ti,ab.	941,852
23	exp mirikizumab/ or (mirikizumab or LY-3074828 or LY3074828).ti,ab.	20

24	exp Piclidenoson/ or (Piclidenoson or 3-IB-Meca or CF-101 or CF101 or IB-Meca).ti,ab.	411
25	or/2-24	1,545,868
26	((random$ and (assign$ or allocate$)) or RCT or trial or crossover or cross over or placebo or controlled study or major clinical study).ti,ab.	978,841
27	exp randomized controlled trial/ or exp randomization/ or exp single blind procedure/ or exp double blind procedure/ or exp crossover procedure/ or exp placebo/	635,387
28	((doubl$ and blind$) or (singl$ and blind$)).ti,ab.	193,674
29	or/26-28	1,248,885
30	1 and 25 and 29	2086
31	(animal/ not human/) or nonhuman/ or exp animal experiment/ or exp experimental animal/ or animal model/ or exp rodent/ or (rat or rats or mouse or mice).ti.	5,810,577
32	review.pt. not (((systematic or meta) and analy$) or ((indirect or mixed) and treatment comparison)).ti,ab.	2,761,908
33	31 or 32	8,326,898
34	30 not 33	1723
35	Limit 34 to English language	1692
36	Limit 35 to (books or chapter or conference abstract or letter or note or short survey)	46
37	35 not 36	1646
38	Limit 37 to dt="20200801-20211011"	197
Central (via OvidSP) Search Strategy		
1	exp psoriasis/ or psoria$.ti,ab.	9990
2	BMS-986165.ti,ab.	65
3	exp certolizumab pegol/ or (certolizumab pegol or Cimzia or CDP870 or CDP-870).ti,ab.	627
4	exp adalimumab/ or (adalimumab$ or Humira or d2e7).ti,ab.	3511
5	exp etanercept/ or (etanercept$ or Enbrel or Embrel or Benepali).ti,ab.	2326
6	(brodalumab or Siliq or Kyntheum or KHK4827 or KHK-4827 or AMG-827 or AMG827).ti,ab.	190
7	(ixekizumab or Taltz or ly2439821 or ly-2439821).ti,ab.	575
8	(secukinumab or Cosentyx or ain457 or ain-457).ti,ab.	1040
9	(guselkumab or Tremfya or cnto-1959 or cnto1959).ti,ab.	343
10	exp ustekinumab/ or (ustekinumab or Stelara or cnto-1275 or cnto1275).ti,ab.	975
11	(tildrakizumab or Ilumya or Ilumetri or mk-3222 or mk3222 or sch-900222 or sch900222).ti,ab.	187
12	(risankizumab or bi 655066 or bi655066 or abbv-066 or abbv066).ti,ab.	157
13	(bimekizumab or UCB4940 or UCB-4940).ti,ab.	107
14	exp infliximab/ or (infliximab or Remicade or Renflexis or Inflectra or ca2).ti,ab.	3135
15	(apremilast or Otezla or cc-10004 or cc10004).ti,ab.	492

16	exp Interleukin-23 subunit p19/ or (interleukin 23p19 or interleukin23p19 or interleukin-23p19 or IL-23p19 or IL-23 p19).ti,ab.	211
17	exp methotrexate/ or methotrexate.ti,ab.	11,736
18	exp cyclosporine/ or cyclosporine.ti,ab.	5948
19	exp dimethyl fumarate/ or dimethyl fumarate.ti,ab.	403
20	exp acitretin/ or (acitretin or Soriatane or Neotigason).ti,ab.	191
21	interleukin.mp.	22,753
22	biologic$.ti,ab.	26,304
23	(mirikizumab or LY-3074828 or LY3074828).ti,ab.	94
24	(Piclidenoson or 3-IB-Meca or CF-101 or CF101 or IB-Meca).ti,ab.	31
25	or/2-24	69,680
26	((random$ and (assign$ or allocate$)) or RCT or trial or crossover or cross over or placebo or controlled study or major clinical study).ti,ab.	999,520
27	exp randomized controlled trial/ or exp random allocation/ or exp single-blind method/ or exp double-blind method/ or exp crossover studies/ or exp placebos/	210,760
28	((doubl$ and blind$) or (singl$ and blind$)).ti,ab.	298,230
29	or/26-28	1,067,591
30	1 and 25 and 29	3805
31	(animals/ not humans/) or nonhuman/ or exp animal experimentation/ or exp disease models, animal/ or exp rodent/ or (rat or rats or mouse or mice).ti.	3106
32	review.pt. not (((systematic or meta) and analy$) or ((indirect or mixed) and treatment comparison)).ti,ab.	3009
33	31 or 32	6040
34	30 not 33	3800
35	Limit 34 to English language	3008
36	Limit 35 to up="202008-202110"	1296
	After EN removal of 2019 or prior records	595
CDSR (via OVIDSP) Search Strategy		
1	psoria$.ti,ab.	39
2	BMS-986165.ti,ab.	0
3	(certolizumab pegol or Cimzia or CDP870 or CDP-870).ti,ab.	10
4	(adalimumab$ or Humira or d2e7).ti,ab.	26
5	(etanercept$ or Enbrel or Embrel or Benepali).ti,ab.	22
6	(brodalumab or Siliq or Kyntheum or KHK4827 or KHK-4827 or AMG-827 or AMG827).ti,ab.	1
7	(ixekizumab or Taltz or ly2439821 or ly-2439821).ti,ab.	1
8	(secukinumab or Cosentyx or ain457 or ain-457).ti,ab.	2
9	(guselkumab or Tremfya or cnto-1959 or cnto1959).ti,ab.	2
10	(ustekinumab or Stelara or cnto-1275 or cnto1275).ti,ab.	7

11	(tildrakizumab or Ilumya or Ilumetri or mk-3222 or mk3222 or sch-900222 or sch900222).ti,ab.	0
12	(risankizumab or bi 655066 or bi655066 or abbv-066 or abbv066).ti,ab.	1
13	(bimekizumab or UCB4940 or UCB-4940).ti,ab.	1
14	(infliximab or Remicade or Renflexis or Inflectra or ca2).ti,ab.	43
15	(apremilast or Otezla or cc-10004 or cc10004).ti,ab.	2
16	(interleukin 23p19 or interleukin23p19 or interleukin-23p19 or IL-23p19 or IL-23 p19).ti,ab.	0
17	methotrexate.ti,ab.	71
18	cyclosporine.ti,ab.	21
19	dimethyl fumarate.ti,ab.	7
20	(acitretin or Soriatane or Neotigason).ti,ab.	4
21	interleukin.mp.	388
22	biologic$.ti,ab.	226
23	(mirikizumab or LY-3074828 or LY3074828).ti,ab.	1
24	(Piclidenoson or 3-IB-Meca or CF-101 or CF101 or IB-Meca).ti,ab.	0
25	or/2-24	660
26	1 and 25	24
27	202008$.up. or 202009$.up. or 202010$.up. or 202011$.up. or 202012$.up. or 2021$.up.	1694
28	26 and 27	3
PsycINFO (via EBSCOhost) Search Strategy		
1	psoria$.ti,ab.	695
2	BMS-986165.ti,ab.	0
3	(certolizumab pegol or Cimzia or CDP870 or CDP-870).ti,ab.	2
4	(adalimumab$ or Humira or d2e7).ti,ab.	31
5	(etanercept$ or Enbrel or Embrel or Benepali).ti,ab.	123
6	(brodalumab or Siliq or Kyntheum or KHK4827 or KHK-4827 or AMG-827 or AMG827).ti,ab.	2
7	(ixekizumab or Taltz or ly2439821 or ly-2439821).ti,ab.	4
8	(secukinumab or Cosentyx or ain457 or ain-457).ti,ab.	4
9	(guselkumab or Tremfya or cnto-1959 or cnto1959).ti,ab.	1
10	(ustekinumab or Stelara or cnto-1275 or cnto1275).ti,ab.	6
11	(tildrakizumab or Ilumya or Ilumetri or mk-3222 or mk3222 or sch-900222 or sch900222).ti,ab.	0
12	(risankizumab or bi 655066 or bi655066 or abbv-066 or abbv066).ti,ab.	0
13	(bimekizumab or UCB4940 or UCB-4940).ti,ab.	0
14	(infliximab or Remicade or Renflexis or Inflectra or ca2).ti,ab.	9770
15	(apremilast or Otezla or cc-10004 or cc10004).ti,ab.	5
16	(interleukin 23p19 or interleukin23p19 or interleukin-23p19 or IL-23p19 or IL-23 p19).ti,ab.	14

17	methotrexate.ti,ab.	359
18	cyclosporine.ti,ab.	241
19	dimethyl fumarate.ti,ab.	72
20	(acitretin or Soriatane or Neotigason).ti,ab.	4
21	interleukin.mp.	7703
22	biologic$.ti,ab.	86,583
23	(mirikizumab or LY-3074828 or LY3074828).ti,ab.	0
24	(Piclidenoson or 3-IB-Meca or CF-101 or CF101 or IB-Meca).ti,ab.	14
25	or/2-24	104,043
26	((random$ and (assign$ or allocate$)) or RCT or trial or crossover or cross over or placebo or controlled study or major clinical study).ti,ab.	190,189
27	exp randomized controlled trial/ or exp placebo/	7062
28	((doubl$ and blind$) or (singl$ and blind$)).ti,ab.	28,860
29	or/26-28	195,789
30	1 and 25 and 29	9
31	Limit 30 to English	11
32	202008$.dp. or 202009$.dp. or 202010$.dp. or 202011$.dp. or 202012$.dp. or 2021$.dp.	104,351
33	31 and 32	0
Embase (via OvidSP) Search Strategy		
1	exp psoriasis/ or psoria$.ti,ab.	104,787
2	BMS-986165.ti,ab.	43
3	exp certolizumab pegol/ or (certolizumab pegol or Cimzia or CDP870 or CDP-870).ti,ab.	7707
4	exp adalimumab/ or (adalimumab$ or Humira or d2e7).ti,ab.	38,708
5	exp etanercept/ or (etanercept$ or Enbrel or Embrel or Benepali).ti,ab.	34,792
6	exp brodalumab/ or (brodalumab or Siliq or Kyntheum or KHK4827 or KHK-4827 or AMG-827 or AMG827).ti,ab.	1430
7	exp ixekizumab/ or (ixekizumab or Taltz or ly2439821 or ly-2439821).ti,ab.	2487
8	exp secukinumab/ or (secukinumab or Cosentyx or ain457 or ain-457).ti,ab.	5094
9	exp guselkumab/ or (guselkumab or Tremfya or cnto-1959 or cnto1959).ti,ab.	1253
10	exp ustekinumab/ or (ustekinumab or Stelara or cnto-1275 or cnto1275).ti,ab.	9077
11	exp tildrakizumab/ or (tildrakizumab or Ilumya or Ilumetri or mk-3222 or mk3222 or sch-900222 or sch900222).ti,ab.	684
12	exp risankizumab/ or (risankizumab or bi 655066 or bi655066 or abbv-066 or abbv066).ti,ab.	686
13	exp bimekizumab/ or (bimekizumab or UCB4940 or UCB-4940).ti,ab.	206

14	exp infliximab/ or (infliximab or Remicade or Renflexis or Inflectra or ca2).ti,ab.	139,365
15	exp apremilast/ or (apremilast or Otezla or cc-10004 or cc10004).ti,ab.	2751
16	exp interleukin 23p19/ or (interleukin 23p19 or interleukin23p19 or interleukin-23p19 or IL-23p19 or IL-23 p19).ti,ab.	2195
17	exp methotrexate/ or methotrexate.ti,ab.	194,075
18	exp cyclosporine/ or cyclosporine.ti,ab.	59,770
19	exp fumaric acid dimethyl ester/ or dimethyl fumarate.ti,ab.	2999
20	exp etretin/ or (acitretin or Soriatane or Neotigason).ti,ab.	7350
21	interleukin.mp.	769,557
22	biologic$.ti,ab.	1,168,218
23	exp mirikizumab/ or (mirikizumab or LY-3074828 or LY3074828).ti,ab.	156
24	exp Piclidenoson/ or (Piclidenoson or 3-IB-Meca or CF-101 or CF101 or IB-Meca).ti,ab.	577
25	or/2-24	2,220,898
26	((random$ and (assign$ or allocate$)) or RCT or trial or crossover or cross over or placebo or controlled study or major clinical study).ti,ab.	1,386,058
27	exp randomized controlled trial/ or exp randomization/ or exp single blind procedure/ or exp double blind procedure/ or exp crossover procedure/ or exp placebo/	1,055,434
28	((doubl$ and blind$) or (singl$ and blind$)).ti,ab.	275,012
29	or/26-28	1,825,074
30	1 and 25 and 29	7537
31	(animal/ not human/) or nonhuman/ or exp animal experiment/ or exp experimental animal/ or animal model/ or exp rodent/ or (rat or rats or mouse or mice).ti.	8,788,108
32	review.pt. not (((systematic or meta) and analy$) or ((indirect or mixed) and treatment comparison)).ti,ab.	2,687,632
33	31 or 32	1,078,261
34	30 not 33	5678
35	Limit 34 to English language	5535
36	American Academy of Dermatology.cf,cg.	9055
37	British Association of Dermatologists.cf,cg.	4289
38	35 and (36 or 37)	543
39	Limit 38 to dc="20200801-20211011"	9

[a]The relevant websites for the European Society for Dermatological Research, Society for Investigative Dermatology, and World Congress of Dermatology, which are not indexed in Embase (via OvidSP) nor available online (through a searchable website or published in searchable PDF files) were also searched for available abstracts.

Table S3. Study selection criteria.

Category	Inclusion Criteria	Exclusion Criteria
Population	Adults (≥18 y) with moderate to severe[a] PsO who are candidates for systemic therapy	Forms of PsO other than moderate to severe; pediatric patients; studies focused only on the treatment of PsA where all patients were diagnosed with PsA; studies on patients with palmoplantar pustulosis
Interventions		Studies that did not include a treatment arm with any of the selected comparators of interest
Systemic biologics		
TNF-α inhibitors	Adalimumab 40 mg EOW (with 80-mg loading dose); certolizumab pegol 400 or 200 mg Q2W (with 400-mg loading dose); etanercept 25 mg QW, 50 mg BIW, or 25 mg BIW; infliximab 5 mg/kg Q8W	
IL-17 family of receptor inhibitors	Bimekizumab 320 mg Q4W; brodalumab 210 mg Q2W; ixekizumab 80 mg Q2W; mirikizumab 250 mg Q4W; secukinumab 150 or 300 mg Q4W	
IL-23 inhibitors	Guselkumab 100 mg Q8W; risankizumab 150 mg Q12W; tildrakizumab 100 or 200 mg Q12W	
IL-12/23 inhibitors	Ustekinumab 45 or 90 mg Q12W[b]	

Adenosine A3 receptor antagonists	Piclidenoson 2 or 3 mg BID	
Systemic nonbiologics[c]	Acitretin 0.4 mg/kg; apremilast 30 mg BID; cyclosporine 2.5–5 mg/kg/day; deucravacitinib 6 mg; dimethyl fumarate 720 mg; methotrexate 7.5–15 mg	
Comparisons	Placebo; best supportive care; any of the above therapies	Not applicable
Outcomes		Organ-specific PASI (ie, nail PASI); investigator's global assessment; other outcomes or time points not listed as being of interest
Efficacy	PASI 50, 75, 90, 100	
Safety	Adverse and serious adverse events; malignancies; infections; treatment discontinuation (ie, all-cause, due to adverse events, etc)	
Study designs	RCTs (phase 2, 3, or 4), including follow-up studies of RCTs	Observational/real-world evidence studies; single-arm trials; phase 1 trials; SLRs/NMAs[d]; pooled analyses of trials[d]; narrative publications; nonsystematic reviews; case studies/case reports; editorials
Subgroups	Biologic naive; biologic exposed; severity of PsO[a]	Not applicable
Other limits	English-language articles/conference abstracts	Journal articles and conference abstracts not available in English
	Time frame: no limit for 10- to 16-wk outcomes; 2000–present for studies reporting 24- to 28-wk or 44- to 60-wk outcomes; within the last 2 y for conference abstracts (all time points)	Studies published outside the time frame of interest

[a]Mention of "moderate to severe" was a sufficient criterion for inclusion regardless of definition. However, if "moderate to severe" was not mentioned, a decision on inclusion was made with clear documentation based on any of the following criteria: Physician's Global Assessment ≥3, PASI ≥10, body surface area ≥10, and/or Dermatology Life Quality Index ≥10.

[b]Studies/treatment arms evaluating only ustekinumab 45 mg were excluded from the SLR and NMA, as the ustekinumab 45 mg body weight requirement resulted in limited available data, comparability to the population for other treatments, and generalizability of the findings.

[c]All doses of systemic nonbiologic treatments were included, as doses are often modified or titrated.
[d]Systematic reviews, meta-analyses, and pooled analyses of RCTs were tagged separately during the screening phase, and the lists of included studies from each publication were reviewed to identify any additional relevant RCTs not otherwise captured by the database searches. These publications themselves were not included in the SLR unless unique data that are not published elsewhere were available.
BID twice daily*; BIW* twice weekly; *EOW* every other week; *IL* interleukin; *NMA* network meta-analysis; *PASI* Psoriasis Area and Severity Index; *PsA* psoriatic arthritis; *PsO* plaque psoriasis; *Q2/4/8/12W* ever*y* 2/4/8/12 weeks; *QW* weekly; *RCT* randomized controlled trial; *SLR* systematic literature review; TNF tumor necrosis factor.

Table S4. Study and patient characteristics included in the NMA for all time points.

Trial (Phase)	In Main Analysis, Y/N	Total Patients, No.	Primary End Point, Weeks	Severity Definition	Intervention(s) and Comparators	Age, Mean (SD), Years	Disease Duration, Years	Prior Biologic Therapy, %	Time Points Included in the NMA, Weeks
ACCEPT [29] (3)	Y	903	12	PASI ≥12, BSA ≥10%, PGA ≥3	Etanercept 50 mg BIW	45.7 (13.4)	18.8	11.8	12
					Ustekinumab 90 mg at wk 0 and 4, then Q12W	44.8 (12.3)	18.7	10.4	
ALLURE [30] (3)	N	214	12	PASI ≥12, BSA ≥10%, mIGA 2011 ≥3	Secukinumab 300 mg QW to wk 4, then Q4W	46.2 (13.9)	14.8	NR	12, 28, 52
					Placebo	41.4 (12.9)	17.7	NR	
AlMutairi [31] 2021 (NR)	N	313	12	PASI ≥12, BSA ≥10%, PGA ≥3	Ixekizumab 160 mg at wk 0 then 80 mg Q2W to wk 12, then Q4W	42.0 (11.3)	18.1	18.1	16, 24, 52
					Secukinumab 300 mg QW to wk 4, then Q4W	41.1 (13.7)	17.6	16.5	
AMAGINE-1 [32] (3)	Y	661	12	PASI ≥12, BSA ≥10%, PGA ≥3	Brodalumab 210 mg at wk 0, 1, and 2, then Q2W	46 (12)	20	47	12
					Placebo	47 (13)	21	46	
AMAGINE-2 [9] (3)	Y	1831	12	PASI ≥12, BSA ≥10%, PGA ≥3	Ustekinumab 45 or 90 mg at wk 0 and 4, then Q12W	45 (13)	19	28	12, 24, 52
					Brodalumab 210 mg at wk 0, 1, and 2, then Q2W	45 (13)	19	29	
					Placebo	44 (13)	18	29	

AMAGINE-3 [9] (3)	Y	1881	12	PASI ≥12, BSA ≥10%, PGA ≥3	Ustekinumab 45 or 90 mg at wk 0 and 4, then Q12W	45 (13)	18	24	12, 24, 52
					Brodalumab 210 mg at wk 0, 1, and 2, then Q2W	45 (13)	18	25	
					Placebo	44 (13)	18	24	
Asahina [33] 2010 (2/3)	N	169	16	PASI ≥12, BSA ≥10%	Adalimumab 80 mg at wk 0, then 40 mg Q2W	44.2 (14.3)	14	0[a]	16, 24
					Placebo	43.9 (10.8)	15.5	0[a]	
BE ABLE 1 [34] (2)	N	250	12	PASI ≥12, BSA ≥10%, IGA ≥3	Bimekizumab 320 mg Q4W	42.6 (13.6)	15.9	23.3	12
					Placebo	46.7 (12.3)	15.0	23.8	
BE RADIANT [4] (3b)	Y	743	16	PASI ≥12, BSA ≥10%, IGA ≥3	Bimekizumab 320 mg Q4W to wk 4, then Q8W	45.9 (14.2)	18.4	33.5	16, 28, 48
					Secukinumab 300 mg QW to wk 4, then Q4W	44.0 (14.7)	17.2	32.2	
BE READY [35] (3)	Y	435	16	PASI ≥12, BSA ≥10%, IGA ≥3	Bimekizumab 320 mg Q4W	44.5 (12.9)	19.6	44	16
					Placebo	43.5 (13.1)	19.1	43	
BE SURE (3) [24]	Y	478	16	PASI ≥12, BSA ≥10%, IGA ≥3	Bimekizumab 320 mg Q4W to wk 16, then Q8W	44 (13.5)	17.3	31.1	16, 24
					Adalimumab 80 mg at wk 0, then 40 mg Q2W	45.5 (14.3)	16.2	33.3	

BE VIVID (3) [36]	Y	567	16	PASI ≥12, BSA ≥10%, IGA ≥3	Bimekizumab 320 mg Q4W	45.2 (14.0)	16.0	39	16, 28, 52
					Ustekinumab 45 or 90 mg at wk 0 and 4, then Q12W	46.0 (13.6)	17.8	39	
					Placebo	49.7 (13.6)	19.7	40	
Blauvelt, 2021 [37] (3)	Y	157	16	PASI ≥12, BSA ≥10%, sPGA ≥3	Risankizumab 150 mg at wk 0, 4, and 16	49.3 (15.1)	20.9	44.8	16
					Placebo	48.8 (15.5)	15.8	44.2	
BRIDGE [38] (3)	N	671	16	PASI >10, BSA >10%, PGA ≥3	Dimethyl fumarate up to 720 mg per wk	44 (15.2)	NR	IL-inhibitors: 2.5; TNF-alpha inhibitors: 0	16
					Placebo	44 (14.3)	NR		
Cai [39] 2017 (3)	N	425	12	NR	Adalimumab 80 mg at wk 0, then 40 mg Q2W	43.1 (11.9)	14.8	0[a]	12, 24
					Placebo	43.8 (12.5)	15.8	0[a]	
CAIN457A223 [40] (2)	N	36	12	PASI ≥12, BSA ≥10%, mIGA 2011 ≥3	Secukinumab 300 mg QW to wk 4, then Q4W	47.5 (14)	NR	NR	12
					Placebo	50.3 (13.8)	NR	NR	
CAIN457A2318 [41] (3b)	N	441	12	PASI ≥12, BSA ≥10%, IGA ≥3	Secukinumab 300 mg QW to wk 4, then Q4W	39.0 (11.6)	15.0	14.9	12, 52
					Placebo	38.7 (10.3)	14.8	20.9	
Caproni 2009 [42] (NR)	N	60	12	PASI ≥10, BSA ≥10%	Etanercept 50 mg BIW	NR	NR	NR	12

					Acitretin 0.4 mg/kg/day	NR	NR	NR	
CARIMA [43] (3)	N	151	12	PASI ≥10	Secukinumab 300 mg QW to wk 4, then Q4W	44.2 (12.9)	20.6	31.3	12, 52
					Placebo	43.7 (11.4)	18.9	30.8	
CHAMPION [44] (3)	Y	271	16	PASI ≥10, BSA ≥10%	Adalimumab 80 mg at wk 0,,,,,,,,,,,,, then 40 mg Q2W	42.9 (12.6)	17.9	0[a]	16
					Placebo	40.7 (11.4)	18.8	0[a]	
Chaudhari [45] 2001 (NR)	N	33	10	BSA ≥5%	Infliximab 5 mg/kg at wk 0, 2, and 6	51 (14)	NR	0[a]	10
					Placebo	45 (12)	NR	0[a]	
CIMPACT [46] (3)	N	559	12	PASI ≥12, BSA ≥10%, PGA ≥3	Certolizumab pegol 400 mg at wk 0, 2, and 4 then 200 mg Q2W	46.7 (13.5)	19.5	26.7	16 (12 for etanercept)
					Certolizumab pegol 400 mg Q2W	45.4 (12.4)	17.8	28.7	
					Etanercept 50 mg BIW	44.6 (14.1)	17.4	30.0	
					Placebo	46.5 (12.5)	18.9	19.3	
CIMPASI-1 [47] (3)	N	234	16	PASI ≥12, BSA ≥10%, PGA ≥3	Certolizumab pegol 400 mg at wk 0, 2, and 4, then 200 mg Q2W	44.5 (13.1)	16.6	31.6	16
					Certolizumab pegol 400 mg Q2W	43.6 (12.1)	18.4	33.0	
					Placebo	47.9 (12.8)	18.5	29.4	
CIMPASI-2 [47] (3)	N	227	16	PASI ≥12, BSA ≥10%, PGA ≥3	Certolizumab pegol 400 mg at wk 0, 2, and 4, then 200 mg Q2W	46.7 (13.3)	18.8	35.2	16
					Certolizumab pegol 400 mg Q2W	46.4 (13.5)	18.6	34.5	
					Placebo	43.3 (14.5)	15.4	28.6	

CLARITY [48] (3b)	N	1102	12	PASI ≥12, BSA ≥10%, mIGA 2011 ≥3	Secukinumab 300 mg QW to wk 4, then Q4W	45.4 (14.1)	16.8	20.0	16, 28, 52
					Ustekinumab 45 or 90 mg at wk 0 and 4, then Q12W	45.3 (14.2)	17.3	23.6	
CLEAR [25, 26] (3)	Y	676	16	PASI ≥12, BSA ≥10%, mIGA ≥3	Secukinumab 300 mg QW to wk 4, then Q4W	45.2 (14.0)	19.6	14.2	16, 24, 52
					Ustekinumab 45 or 90 ng at wk 0 and 4, then Q12W	44.6 (13.7)	16.1	13.0	
ECLIPSE [27] (3)	Y	1048	12	PASI ≥12, BSA ≥10%, IGA ≥3	Guselkumab 100 mg at wk 0, 4, and 12, then Q8W	46.3 (13.7)	18.5	29	12, 24, 48
					Secukinumab 300 mg QW to wk 4, then Q4W	45.3 (13.6)	18.3	29	
ERASURE [26] (3)	Y	738	12	PASI ≥12, BSA ≥10%, mIGA ≥3	Secukinumab 300 mg QW to wk 4, then Q4W	44.9 (13.5)	17.4	28.6	16, 24
					Secukinumab 150 mg QW to wk 4, then Q4W	44.9 (13.3)	17.5	29.8	
					Placebo	45.4 (12.6)	17.3	29.4	
ESTEEM 1 [49] (3)	Y	844	16	PASI ≥12, BSA ≥10%, sPGA ≥3	Apremilast 30 mg BID	45.8 (13.1)	19.8	28.8	16, 24
					Placebo	46.5 (12.7)	18.7	28.4	
ESTEEM 2 [50] (3)	Y	411	16	PASI ≥12, BSA ≥10%, sPGA ≥3	Apremilast 30 mg BID	45.3 (13.1)	17.9	33.6	16, 24
					Placebo	45.7 (13.4)	18.7	32.1	
Etanercept Study Group [51] (NR)	Y	583	12	PASI ≥10, BSA ≥10%	Etanercept 50 mg BIW to wk 12, then 25 mg BIW	44.5 (median)	18.1	NR	12, 24

					Etanercept 25 mg BIW	46.0 (median)	21.5	NR	
					Placebo	44.0 (median)	17.5	NR	
EXPRESS [52] (3)	Y	378	10	PASI ≥12, BSA ≥10%	Infliximab 5 mg/kg at wk 0, 2, and 6, then Q8W	42.6 (11.7)	19.1	0[a]	10, 24, 50
					Placebo	43.8 (12.6)	17.3	0[a]	
EXPRESS II [53] (3)	Y	835	10	PASI ≥12, BSA ≥10%	Infliximab 5 mg/kg at wk 0, 2, and 6, then Q8W	44.5 (13.0)	19.1	14.3	10, 26, 50
					Placebo	44.4 (12.5)	17.8	13.0	
FEATURE [54, 55] (3)	Y	177	12	PASI ≥12, BSA ≥10%, mIGA 2011 ≥3	Secukinumab 300 mg QW to wk 4, then Q4W	45.1 (12.6)	18.0	39.0	12, 24, 52
					Secukinumab 150 mg QW to wk 4, then Q4W	46.0 (15.1)	20.4	47.5	
					Placebo	46.5 (14.1)	20.2	44.1	
FIXTURE [26] (3)	Y	1306	12	PASI ≥12, BSA ≥10%, mIGA ≥3	Secukinumab 300 mg QW to wk 4, then Q4W	44.5 (13.2)	15.8	11.6	12, 24, 52
					Secukinumab 150 mg QW to wk 4, then Q4W	45.4 (12.9)	17.3	13.8	
					Etanercept 50 mg BIW to wk 12, then QW	43.8 (13.0)	16.4	13.8	
					Placebo	44.1 (12.6)	16.6	10.7	
Flystrom 2008 [56] (NR)	N	68	12	NR	Methotrexate 7.5–15 mg QW	48	NR	NR	12
					Cyclosporine 3–5 mg/kg/day	45	NR	NR	

Gisondi 2008 [57] (NR)	N	60	24	NR	Etanercept 25 mg BIW	55.3	23.5	0[a]	12, 24
					Acitretin 0.4 mg/kg/day	55.0	18.8	0[a]	
Goldminz 2015 [58] (4)	N	30	16	PGA ≥3	Adalimumab 80 mg at wk 0, then 40 mg Q2W	50.5	17.3	0[a]	12
					Methotrexate 7.5–25 mg QW	50.3	21.5	0[a]	
Gottlieb, 2003 [59] (2)	N	112	12	BSA ≥10%	Etanercept 25 mg BIW	48.2	23	NR	12, 24
					Placebo	46.5	20	NR	
Heydendael, 2003 [60] (NR)	N	88	16	PASI ≥8	Methotrexate 15–22.5 mg QW	41.6 (13.0)	NR	NR	16
					Cyclosporine 3–5 mg/kg/day	38.3 (12.4)	NR	NR	
Igarashi [61] 2012 (2/3)	N	158	12	PASI ≥12, BSA ≥10%	Ustekinumab 90 mg at wk 0 and 4, then Q12W	44.0 (median)	17.3	0	12, 24, 52
					Placebo	49.0 (median)	16.0	0	
IMMerge [28] (3)	Y	327	16	PASI ≥12, BSA ≥10%, sPGA ≥3	Risankizumab 150 mg at wk 0 and 4, then Q12W	47.3 (13.4)	18.6	37.8	16, 24, 52
					Secukinumab 300 mg QW to wk 4, then Q4W	46.8 (14.9)	17.4	35.6	
IMMhance [62] (3)	Y	507	16	PASI ≥12, BSA ≥10%, sPGA ≥3	Risankizumab 150 mg at wk 0 and 4, then Q12W	51 (median)	NR	56.5	16, 24
					Placebo	48 (median)	NR	51.0	

IMMvent [5] (3)	Y	605	16	PASI ≥12, BSA ≥10%, sPGA ≥3	Risankizumab 150 mg at wk 0 and 4, then Q12W	45.3 (13.8)	NR	39	16
					Adalimumab 40 mg at wk 0, then 40 mg Q2W	47.0 (13.1)	NR	37	
IXORA-R (4) [8]	N		12	PASI ≥12, BSA ≥10%, sPGA ≥3	Ixekizumab 160 mg at wk 0, 80 mg Q2W to wk 12, then Q4W	49 (13.9)	17.5	26	12, 24
					Guselkumab 100 mg at wk 0 and 4, then Q8W	49 (14.9)	16.3	26	
IXORA-S [11] (3b)	Y	302	12	PASI ≥10	Ustekinumab 45 or 90 mg at wk 0 and 4, then Q12W	44.0 (13.3)	18.2	15.1	12, 24, 52
					Ixekizumab 160 mg at wk 0, 80 mg Q2W to wk 12, then Q4W	42.7 (12.7)	18.0	13.2	
JUNCTURE [63] (3)	N	182	12	PASI ≥12, BSA ≥10%, mIGA 2011 ≥3	Secukinumab 300 mg QW to wk 4, then Q4W	46.6 (14.2)	21.0	25.0	12, 24, 52
					Secukinumab 150 mg QW to wk 4, then Q4W	43.9 (14.4)	20.6	24.6	
					Placebo	43.7 (12.7)	19.9	21.3	
Lee 2016 [64] (NR)	N	60	24	PASI ≥10, BSA ≥10%	Etanercept 50 mg BIW to wk 12, then 25 mg BIW	38.6 (9.5)	NR	NR	24
					Acitretin 10 mg BID	42.4 (12.0)	NR	NR	
Leonardi [65] 2003 (3)	N	672	12	PASI ≥10, BSA ≥10%	Etanercept 25 mg QW	44.4 (SE, 0.9)	19.3	0[a]	12, 24
					Etanercept 25 mg BIW	45.4 (SE, 1.0)	18.5	0[a]	

					Etanercept 50 mg BIW	44.8 (SE, 0.8)	18.6	0[a]	
					Placebo	45.6 (SE, 1.0)	18.4	0[a]	
LIBERATE [6] (3)	Y	250	16	PASI ≥12, BSA ≥10%, sPGA ≥3	Etanercept 50 mg QW	47.0 (14.1)	18.1	0[a]	16, 52
					Apremilast 30 mg BID	46.0 (13.6)	19.7	0[a]	
					Placebo	43.4 (14.9)	16.6	0[a]	
M02-528 [66] (2)	N	147	12	BSA ≥5%, PsO ≥1 y	Adalimumab 80 mg at wk 0, then 40 mg Q2W	46	21	0[a]	12, 24, 52
					Placebo	43	19	0[a]	
M10-114 [67] (3)	Y	347	12	PASI ≥12, BSA ≥10%, PGA ≥3	Etanercept 50 mg BIW	43.1 (12.5)	17.0	14.2	12
					Placebo	44.0 (13.6)	19.1	14.7	
M10-315 [68] (3)	Y	350	12	PASI ≥12, BSA ≥10%, PGA ≥3	Etanercept 50 mg BIW	45.2 (14.8)	15.2	7.9	12
					Cyclosporin A 2.5 mg/kg/day	NR	NR	NR	
					Placebo	NR	NR	NR	
METOP [104] (3)	Y	120	16	PASI ≥10, BSA ≥10%	Methotrexate 17.5–22.5 mg QW	45.9 (12.9)	20.7	5	16, 24, 52
					Placebo	44.4 (10.8)	14.3	3	
Nakagawa [70] 2016 (2)	N	151	12	PASI ≥12, BSA ≥10%	Brodalumab 210 mg at wk 0, 1, and 2, then Q2W	46.4 (11.8)	15.0	13.5	12
					Placebo	46.6 (10.8)	16.9	7.9	
Noor 2017 [71] NR)	N	142	24	BSA ≥20%	Methotrexate 25 mg QW	NR	NR	NR	24

					Acitretin 0.4 mg/kg/day	NR	NR	NR	
Ohtsuki [72] 2017 (2b)	N	254	16	PASI ≥12, BSA ≥10%	Apremilast 30 mg BID	51.7 (12.7)	13.9	2.4	16, 24
					Placebo	48.3 (12.0)	12.4	4.8	
Ohtsuki [73] 2018 (3)	N	192	16	PASI ≥12, BSA ≥10%, IGA ≥3	Guselkumab 100 mg at wk 0 and 4, then Q8W	47.8 (11.1)	14.4	17.5	16, 24
					Placebo	48.3 (10.6)	13.7	15.6	
OPT Compare Study [74] (3)	Y	1106	12	PASI ≥12, BSA ≥10%, PGA ≥3	Etanercept 50 mg BIW	42.0	18.0	11	12
					Placebo	46.0	17.0	11	
ORION [75] (3)	Y	78	16	PASI ≥12, BSA ≥10% IGA ≥3	Guselkumab 100 mg at wk 0 and 4, then Q8W	46.2 (12.9)	19.1	NR	16, 24
					Placebo	45.4 (12.8)	17.4	NR	
P05495 [76] (2b)	N	355	16	PASI ≥12, BSA ≥10%, PGA ≥3	Tildrakizumab 100 mg at wk 0 and 4, then Q12W	45.5 (12.8)	NR	26	16
					Tildrakizumab 200 mg at wk 0 and 4, then Q12W	43.2 (12.6)	NR	26	
					Placebo	45.9 (11.7)	NR	28	
Papp 2012 [77] 2)	N	198	12	PASI ≥12, BSA ≥10%	Brodalumab 210 mg at wk 0, 1, and 2, then Q2W	42.1 (12.2)	17.1	Etanercept: 10	12
								Adalimumab: 18	
								Ustekinumab: 15	
					Placebo	41.8 (14.4)	18.3	Etanercept: 18	
								Adalimumab: 11	

								Ustekinumab: 13	
Papp 2012 [78] (2)	N	352	16	PASI ≥12, BSA ≥10%	Apremilast 30 mg BID	44.1 (14.7)	19.2	NR	16, 24
					Placebo	44.1 (13.7)	19.6	NR	
PHOENIX 1 [79] (3)	Y	766	12	PASI ≥12, BSA ≥10%	Ustekinumab 90 mg at wk 0 and 4, then Q12W	46.2 (11.3)	19.6	50.8	12, 28
					Placebo	44.8 (11.3)	20.4	50.2	
PHOENIX 2 [80] (3)	Y	1230	12	PASI ≥12, BSA ≥10%	Ustekinumab 90 mg at wk 0 and 4, then Q12W	46.6 (12.1)	20.3	36.5	12, 28
					Placebo	47.0 (12.5)	20.8	38.8	
PIECE [81] (NR)	N	48	24	PASI ≥10 and/or BSA ≥10, and/or PASI ≥8 plus Skindex-29 score ≥35	Etanercept 50 mg BIW	42.4 (13.2)	17.9	Efalizumab: 4	12
								Etanercept: 9	
								Adalimumab: 9	
					Infliximab 5 mg/kg at wk 0, 2, and 6, then Q8W	45.9 (13.9)	21.5	Efalizumab: 0	
								Etanercept: 8	
								Adalimumab: 4	
POETYK PSO-1 [1] (3)	Y	666	16	PASI ≥12, BSA ≥10%, sPGA ≥3	Deucravacitinib 6 mg OD	45.9 (13.7)	17.1	39.2	16, 24, 52
					Apremilast 30 mg BID	44.7 (12.1)	17.7	39.3	16, 24

					Placebo	47.9 (14.0)	17.3	38.0	16
POETYK PSO-2 [2] (3)	Y	1020	16	PASI ≥12, BSA ≥10%, sPGA ≥3	Deucravacitinib 6 mg OD	46.9 (13.4)	19.6	32.3	16, 24, 52
					Apremilast 30 mg BID	46.4 (13.3)	18.9	31.1	16, 24
					Placebo	47.3 (13.6)	19.9	32.5	
Reich, 2012 [82] (2)	N	176	12	PASI ≥12, BSA ≥10%	Certolizumab 400 mg Q2W	43.6 (12.4)	19.6	24	12
					Placebo	43.3 (12.8)	19.7	24	
Reich 2020 [83] (3b)	Y	162	16	NR	Ixekizumab 160 mg at wk 0, 80 mg Q2W to wk 12 and then Q4W	44.3 (13.8)	13.9	0[a]	16, 24
					Methotrexate 7.5–25 mg QW	38.7 (12.9)	12.9	0[a]	
RESTORE1 [84] (3b)	Y	868	16	PASI ≥12, BSA ≥10%	Infliximab 5 mg/kg at wk 0, 2, and 6, then Q8W	44.1	18.8	8.3	16
					Methotrexate 15 mg QW	41.9	17.0	8.4	
reSURFACE 1 [7] (3)	Y	772	12	PASI ≥12, BSA ≥10%, PGA ≥3	Tildrakizumab 200 mg at wk 0 and 4, then Q12W	46.9 (13.2)	NR	23	12, 28
					Tildrakizumab 100 mg at wk 0 and 4, then Q12W	46.4 (13.3)	NR	23	
					Placebo	47.9 (13.5)	NR	23	
reSURFACE 2 [7] (3)	Y	1090	12	PASI ≥12, BSA ≥10%, PGA ≥3	Tildrakizumab 200 mg at wk 0 and 4, then Q12W	44.6 (13.6)	NR	12	12, 28
					Tildrakizumab 100 mg at wk 0 and 4, then Q12W	44.6 (13.6)	NR	13	
					Etanercept 50 mg BIW to wk 12, then Q12W	45.8 (14.0)	NR	12	
					Placebo	46.4 (12.2)	NR	13	

REVEAL [85] (3)	Y	1212	16	PASI ≥12, BSA ≥10%, PGA ≥3	Adalimumab 80 mg at wk 0 then 40 mg Q2W	44.1 (13.2)	18.1	11.9	16
					Placebo	45.4 (13.4)	18.4	13.3	
Rui 2021 [86] (3)	N	438	12	NR	Infliximab 160 mg at wk 0, then 80 mg Q2W	NR	NR	NR	12
					Placebo	NR	NR	NR	
Seo [87] 2021 (3)	N	62	12	PASI ≥12, BSA ≥10%, sPGA ≥3	Brodalumab 210 mg at wk 0 and 1, then Q2W	43.5 (14.3)	10.9	10.0	12, 24, 52
					Placebo	43.7 (15.8)	13.6	36.4	
SPIRIT [88] (NR)	Y	249	10	PASI ≥12, BSA ≥10%	Infliximab 5 mg/kg at wk 0, 2, and 6	44 (median)	16	33.3	10
					Placebo	45 (median)	16	31.4	
SustaIMM [89] (2/3)	N	171	16	PASI ≥12, BSA ≥10%, sPGA ≥3	Risankizumab 150 mg at wk 0 and 4, then Q12W	53.3 (11.9)	NR	29	16, 28, 52
					Placebo	50.9 (11.2)	NR	24	
Tyring [90] 2006 (3)	N	620	12	PASI ≥10, BSA ≥10%	Etanercept 50 mg BIW	45.8 (12.8)	20.1	0[a]	12, 24, 48
					Placebo	45.6 (12.1)	19.7	0[a]	
UltIMMa-1 [3] (3)	Y	506	12	PASI ≥12, BSA ≥10%, sPGA ≥3	Risankizumab 150 mg at wk 0 and 4, then Q12W	48.3 (13.4)	NR	34	16, 52
					Ustekinumab 45 or 90 mg at wk 0 and 4, then Q12W	46.5 (13.4)	NR	30	
					Placebo	49.3 (13.6)	NR	39	
UltIMMa-2 [3] (3)	Y	491	12	PASI ≥12, BSA ≥10%, sPGA ≥3	Risankizumab 150 mg at wk 0 and 4, then Q12W	46.2 (13.7)	NR	40	16, 52
					Ustekinumab 45 or 90 mg at wk 0 and 4, then Q12W	48.6 (14.8)	NR	43	
					Placebo	46.3 (13.3)	NR	43	

Umezawa [91] 021 (2/3)	N	127	16	PASI ≥12, BSA ≥10%, PGA ≥3	Certolizumab pegol 400 mg Q2W	52.4 (11.6)	13.2	Anti-TNF: 5.7	16
					Certolizumab pegol 400 mg at wk 0, 2, and 4, then 200 mg Q2W	48.4 (13.5)	12.7	Anti-TNF: 6.3	
					Placebo	47.9 (11.4)	12.7	Anti-TNF: 3.8	
UNCOVER-1 [92] (3)	Y	1296	12	PASI ≥12, BSA ≥10%, sPGA ≥3	Ixekizumab 160 mg at wk 0, then 80 mg Q2W	45 (12)	20	40	12
					Placebo	46 (13)	20	42	
UNCOVER-2 [93] (3)	Y	1224	12	PASI ≥12, BSA ≥10%, sPGA ≥3	Ixekizumab 160 mg at wk 0, then 80 mg Q2W	45 (13)	18	24	12
					Etanercept 50 mg BIW	45 (13)	19	21	
					Placebo	45 (12)	19	26	
UNCOVER-3 [93] (3)	Y	1346	12	PASI ≥12, BSA ≥10%, sPGA ≥3	Ixekizumab 160 mg at wk 0, then 80 mg Q2W	46 (13)	18	15	12, 24, 60
					Etanercept 50 mg BIW	46 (14)	18	16	
					Placebo	46 (12)	18	17	
UNVEIL [94, 95] (4)	N	221	16	BSA 5%–10%, sPGA 3	Apremilast 30 mg BID	48.6 (15.4)	17.5	0[a]	16, 52
					Placebo	51.1 (13.7)	13.9	0[a]	
Van de Kerkhof [96] 2008 (3)	N	142	12	PASI ≥10, BSA ≥10%	Etanercept 50 mg QW	45.9 (12.8)	19.3	0[a]	12, 24
					Placebo	43.6 (12.6)	17.3	0[a]	
VIP [97] (4)	N	97	12	PASI ≥12, BSA ≥10%	Adalimumab 80 mg at wk 0, then 40 mg Q2W	44.2 (14.0)	11	32.3	12
					Placebo	44.3 (14.5)	20	35.5	
VIP-S [98] (4)	N	91	12	PASI ≥12, BSA ≥10%, mIGA 2011 ≥3	Secukinumab 300 mg QW to wk 4, then Q4W	47.9 (12.7)	16.3	43.5	12
					Placebo	47.0 (14.7)	15.4	35.6	

VIP-U [99] (4)	N	43	12	PASI ≥12, BSA ≥10%	Ustekinumab 45 or 90 mg at wk 0, 4, and 12, then Q12W	39.5 (13.6)	16.5	45.5	12
					Placebo	45.3 (12.8)	20.3	42.9	
VOYAGE 1 [100] (3)	Y	837	16	PASI ≥12, BSA ≥10%, IGA ≥3	Guselkumab 100 mg at wk 0 and 4, then Q8W	43.9 (12.7)	17.9	21.6	16, 24, 48
					Adalimumab 80 mg at wk 0, then 40 mg Q2W	42.9 (12.6)	17.0	21.0	
					Placebo	44.9 (12.9)	17.6	19.5	
VOYAGE 2 [101] (3)	Y	992	16	PASI ≥12, BSA ≥10%, IGA ≥3	Guselkumab 100 mg at wk 0 and 4, then Q8W	43.7 (12.2)	17.9	20.4	16, 24, 48
					Adalimumab 80 mg at wk 0, then 40 mg Q2W	43.2 (11.9)	17.6	19.8	
					Placebo	43.3 (12.4)	17.9	21.8	
X-PLORE [102] (2)	N	293	16	PASI ≥12, BSA ≥10%, PGA ≥3	Adalimumab 80 mg at wk 0, then 40 mg Q2W	50.0	19.3	60	16, 24
					Placebo	46.5	18.0	36	
Yang [103] 2012 (3)	N	84	10	PASI ≥12, BSA ≥10%	Infliximab 5 mg/kg at wk 0, 2, and 6, then Q8W	39.4 (12.3)	16.0	NR	10, 26
					Placebo	40.1 (11.1)	16.0	NR	

[a]Prior biologic treatment was not allowed in this study.

BIW twice weekly; *BSA* body surface area; *IGA* Investigator's Global Assessment; *mIGA* IGA modified version; *NMA* network meta-analysis; *NR* not reported; *PASI* Psoriasis Area Severity Index; *PGA* Patient's Global Assessment; *Q2/4/8/12W* every 2/4/8/12 weeks; *QW* once weekly; *SD* standard deviation; *SE* standard error; *sPGA* static PGA; *TNF* tumor necrosis factor

Table S5. Main short-term (10–16 weeks) PASI 50, 75, 90, and 100 response probabilities, by treatment.

Treatment	Treatment Class	PASI-50, median, % (95% CrI)	PASI-75, median, % (95% CrI)	PASI-90, median, % (95% CrI)	PASI-100, median, % (95% CrI)
Bimekizumab 320 mg	IL-17 inhibitor	0.980 (0.964–0.990)	0.930 (0.902–0.952)	0.844 (0.801–0.880)	0.587 (0.524–0.645)
Risankizumab 150 mg	IL-23 inhibitor	0.967 (0.947–0.980)	0.896 (0.868–0.919)	0.727 (0.682–0.768)	0.427 (0.377–0.477)
Ixekizumab 80 mg Q2W	IL-17 inhibitor	0.965 (0.943–0.979)	0.890 (0.859–0.915)	0.708 (0.657–0.754)	0.383 (0.331–0.437)
Guselkumab 100 mg	IL-23 inhibitor	0.960 (0.934–0.977)	0.878 (0.843–0.908)	0.691 (0.635–0.744)	0.359 (0.303–0.418)
Brodalumab 210 mg	IL-17 inhibitor	0.951 (0.920–0.970)	0.857 (0.817–0.891)	0.695 (0.639–0.747)	0.405 (0.345–0.466)
Secukinumab 300 mg	IL-17 inhibitor	0.947 (0.918–0.966)	0.848 (0.814–0.878)	0.653 (0.604–0.700)	0.338 (0.292–0.386)
Infliximab 5 mg/kg	TNFi	0.894 (0.858–0.923)	0.790 (0.740–0.835)	0.541 (0.477–0.605)	0.248 (0.179–0.327)
Adalimumab 40 mg	TNFi	0.866 (0.819–0.903)	0.717 (0.673–0.759)	0.471 (0.421–0.522)	0.202 (0.168–0.241)
Secukinumab 150 mg	IL-17 inhibitor	0.873 (0.813–0.919)	0.713 (0.649–0.772)	0.442 (0.372–0.514)	0.157 (0.116–0.208)
Ustekinumab 45 or 90 mg	IL-12/23 inhibitor	0.873 (0.822–0.912)	0.711 (0.667–0.751)	0.461 (0.413–0.509)	0.188 (0.157–0.224)
Ustekinumab 90 mg	IL-12/23 inhibitor	0.873 (0.829–0.908)	0.709 (0.645–0.766)	0.432 (0.364–0.501)	0.149 (0.110–0.197)
Tildrakizumab 200 mg	IL-23 inhibitor	0.828 (0.755–0.885)	0.642 (0.567–0.711)	0.368 (0.297–0.442)	0.131 (0.093–0.179)
Tildrakizumab 100 mg	IL-23 inhibitor	0.820 (0.743–0.881)	0.630 (0.554–0.702)	0.372 (0.300–0.447)	0.133 (0.094–0.183)
Deucravacitinib 6 mg	Nonbiologic	0.753 (0.683–0.814)	0.541 (0.465–0.616)	0.294 (0.231–0.363)	0.105 (0.073–0.147)
Etanercept 50 mg BIW	TNFi	0.737 (0.695–0.777)	0.498 (0.459–0.538)	0.227 (0.198–0.259)	0.062 (0.049–0.079)
Methotrexate	Nonbiologic	0.605 (0.530–0.676)	0.401 (0.330–0.475)	0.176 (0.131–0.231)	0.050 (0.030–0.080)
Etanercept 25 mg BIW/50 mg QW	TNFi	0.669 (0.586–0.747)	0.397 (0.316–0.483)	0.159 (0.109–0.223)	0.037 (0.019–0.067)
Apremilast 30 mg	Nonbiologic	0.580 (0.525–0.635)	0.335 (0.286–0.387)	0.128 (0.100–0.160)	0.026 (0.016–0.039)
Placebo	NA	0.167 (0.142, 0.195)	0.058 (0.044, 0.074)	0.017 (0.012, 0.024)	0.003 (0.002, 0.005)

BIW twice weekly; *CrI* credible interval; *IL* interleukin; *NA* not applicable; *PASI* Psoriasis Area and Severity Index; *Q2W* every 2 weeks; *TNFi* tumor necrosis factor inhibitor

Table S6. Main Mid-term (24–28 weeks) PASI 50, 90, and 100 response probabilities, by treatment.

Treatment	Treatment Class	PASI-50, median % (95% CrI)	PASI-75, median, % (95% CrI)	PASI-90, median % (95% CrI)	PASI-100, median % (95% CrI)
Risankizumab 150 mg	IL-23 inhibitor	0.979 (0.961–0.990)	0.938 (0.912–0.959)	0.827 (0.781–0.869)	0.551 (0.488–0.618)
Bimekizumab 320 mg Q4W> Q8W	IL-17 inhibitor	0.972 (0.943–0.987)	0.921 (0.878–0.952)	0.843 (0.782–0.892)	0.625 (0.541–0.702)
Ixekizumab 80 mg Q2W>Q4W	IL-17 inhibitor	0.961 (0.931–0.978)	0.896 (0.858–0.925)	0.792 (0.740–0.839)	0.539 (0.474–0.605)
Guselkumab 100 mg	IL-23 inhibitor	0.960 (0.935–0.977)	0.895 (0.867–0.918)	0.765 (0.726–0.801)	0.456 (0.409–0.503)
Brodalumab 210 mg	IL-17 inhibitor	0.944 (0.905–0.968)	0.862 (0.818–0.898)	0.750 (0.694–0.799)	0.511 (0.448–0.574)
Secukinumab 300 mg	IL-17 inhibitor	0.936 (0.901–0.960)	0.847 (0.818–0.872)	0.698 (0.660–0.733)	0.405 (0.365–0.444)
Ustekinumab 90 mg	IL-12/23 inhibitor	0.906 (0.875–0.931)	0.750 (0.699–0.794)	0.525 (0.466–0.582)	0.272 (0.224–0.322)
Secukinumab 150 mg	IL-17 inhibitor	0.877 (0.819–0.920)	0.746 (0.695–0.788)	0.528 (0.469–0.579)	0.229 (0.186–0.272)
Ustekinumab 45 or 90 mg	IL-12/23 inhibitor	0.873 (0.820–0.914)	0.742 (0.704–0.776)	0.579 (0.537–0.621)	0.304 (0.267–0.343)
Tildrakizumab 200 mg	IL-23 inhibitor	0.869 (0.808–0.915)	0.734 (0.685–0.781)	0.548 (0.492–0.605)	0.275 (0.228–0.325)
Infliximab 5 mg/kg	TNFi	0.821 (0.763–0.868)	0.723 (0.660–0.777)	0.510 (0.441–0.575)	0.240 (0.168–0.323)
Tildrakizumab 100 mg	IL-23 inhibitor	0.861 (0.800–0.909)	0.722 (0.671–0.770)	0.504 (0.448–0.561)	0.222 (0.181–0.270)
Adalimumab 40 mg	TNFi	0.853 (0.790–0.901)	0.710 (0.659–0.755)	0.531 (0.476–0.584)	0.263 (0.219–0.310)
Deucravacitinib 6 mg	Nonbiologic	0.788 (0.737–0.832)	0.633 (0.580–0.684)	0.378 (0.327–0.430)	0.153 (0.121–0.190)
Etanercept 50 mg BIW	TNFi	0.727 (0.646–0.800)	0.544 (0.495–0.590)	0.317 (0.272–0.363)	0.105 (0.080–0.134)
Methotrexate	Nonbiologic	0.693 (0.585–0.789)	0.501 (0.390–0.615)	0.277 (0.189–0.386)	0.093 (0.047–0.164)
Etanercept 25 mg BIW/50 mg QW	TNFi	0.632 (0.515–0.739)	0.437 (0.350–0.530)	0.246 (0.165–0.347)	0.078 (0.039–0.142)
Apremilast 30 mg	Nonbiologic	0.538 (0.485–0.593)	0.348 (0.301–0.398)	0.187 (0.150–0.228)	0.056 (0.038–0.079)
Placebo	NA	0.167 (0.142–0.195)	0.064 (0.048–0.083)	0.021 (0.014–0.031)	0.003 (0.002–0.006)

BIW twice weekly; *CrI* credible interval; *IL* interleukin; *NA* not applicable; *PASI* Psoriasis Area and Severity Index; *Q2W* every 2 weeks; *Q4W* every 4 weeks; *Q8W* every 8 weeks; *TNFi* tumor necrosis factor inhibitor

Table S7. Main Long-term (44–60 weeks) PASI 50, 90, and 100 response probabilities, by treatment.

Treatment	Treatment Class	PASI-50, Median % (95% CrI)	PASI-75, Median, % (95% CrI)	PASI-90, Median % (95% CrI)	PASI-100, Median % (95% CrI)
Risankizumab 150 mg	IL-23 inhibitor	0.962 (0.933–0.981)	0.916 (0.890–0.938)	0.826 (0.789–0.860)	0.599 (0.551–0.650)
Guselkumab 100 mg	IL-23 inhibitor	0.941 (0.898–0.968)	0.878 (0.838–0.911)	0.762 (0.712–0.806)	0.477 (0.417–0.534)
Bimekizumab 320 mg Q4W>Q8W	IL-17 inhibitor	0.933 (0.868–0.969)	0.864 (0.788–0.919)	0.778 (0.688–0.854)	0.538 (0.434–0.642)
Ixekizumab 80 mg Q2W>Q4W	IL-17 inhibitor	0.916 (0.861–0.952)	0.839 (0.791–0.876)	0.727 (0.667–0.777)	0.519 (0.453–0.580)
Brodalumab 210 mg	IL-17 inhibitor	0.898 (0.842–0.940)	0.810 (0.775–0.847)	0.744 (0.704–0.787)	0.543 (0.497–0.598)
Secukinumab 300 mg	IL-17 inhibitor	0.872 (0.809–0.920)	0.770 (0.732–0.803)	0.615 (0.572–0.656)	0.366 (0.325–0.407)
Ustekinumab 45 or 90 mg	IL-12/23 inhibitor	0.805 (0.726–0.874)	0.680 (0.646–0.715)	0.505 (0.468–0.544)	0.293 (0.262–0.328)
Deucravacitinib 6 mg	Nonbiologic	0.786 (0.718–0.845)	0.659 (0.580–0.734)	0.452 (0.373–0.537)	0.205 (0.149–0.273)
Secukinumab 150 mg	IL-17 inhibitor	0.764 (0.662–0.845)	0.628 (0.553–0.696)	0.475 (0.400–0.548)	0.232 (0.176–0.295)
Adalimumab 40 mg	TNFi	0.759 (0.665–0.837)	0.621 (0.563–0.674)	0.417 (0.361–0.473)	0.205 (0.163–0.249)
Infliximab 5 mg/kg	TNFi	0.667 (0.577–0.736)	0.567 (0.477–0.639)	0.398 (0.313–0.472)	0.180 (0.110–0.266)
Etanercept 50 mg BIW	TNFi	0.688 (0.577–0.785)	0.540 (0.461–0.611)	0.326 (0.259–0.395)	0.111 (0.075–0.154)
Apremilast 30 mg	Nonbiologic	0.645 (0.515–0.763)	0.484 (0.357–0.616)	0.318 (0.194–0.471)	0.130 (0.058–0.251)
Methotrexate	Nonbiologic	0.596 (0.479–0.711)	0.450 (0.338–0.573)	0.280 (0.188–0.394)	0.109 (0.054–0.197)
Placebo	NA	0.167 (0.141–0.196)	0.064 (0.046–0.087)	0.024 (0.015–0.035)	0.004 (0.002–0.008)

BIW twice weekly; *CrI* credible interval; *IL* interleukin; *NA* not applicable; *PASI* Psoriasis Area and Severity Index; *Q2W* every 2 weeks; *Q4W* every 4 weeks; *Q8W* every 8 weeks; *TNFi* tumor necrosis factor inhibitor

Table S8. Number needed to treat: probability of achieving PASI 50, 75, 90, and 100 response probabilities at 10–16 weeks, by treatment.

Treatment	Treatment Class	PASI-50, median % (95% CI)	PASI-75, median, % (95% CI)	PASI-90, median % (95% CI)	PASI-100, median % (95% CI)
Bimekizumab 320 mg Q4W> Q8W	IL-17 inhibitor	1.23 (1.19, 1.28)	1.15 (1.11, 1.19)	1.21 (1.16, 1.28)	1.71 (1.56, 1.92)
Risankizumab 150 mg	IL-23 inhibitor	1.25 (1.21, 1.31)	1.19 (1.16, 1.24)	1.41 (1.33, 1.50)	2.36 (2.11, 2.67)
Ixekizumab 80 mg Q2W	IL-17 inhibitor	1.26 (1.21, 1.31)	1.20 (1.16, 1.25)	1.45 (1.36, 1.56)	2.63 (2.31, 3.05)
Guselkumab 100 mg	IL-23 inhibitor	1.26 (1.21, 1.32)	1.22 (1.17, 1.28)	1.49 (1.38, 1.62)	2.82 (2.42, 3.33)
Brodalumab 210 mg	IL-17 inhibitor	1.28 (1.23, 1.35)	1.25 (1.20, 1.32)	1.48 (1.37, 1.61)	2.49 (2.17, 2.91)
Secukinumab 300 mg	IL-17 inhibitor	1.29 (1.23, 1.35)	1.27 (1.22, 1.33)	1.58 (1.48, 1.70)	3.01 (2.66, 3.44)
Infliximab 5 mg/kg	TNFi	1.38 (1.31, 1.47)	1.37 (1.29, 1.47)	1.91 (1.70, 2.17)	4.10 (3.09, 5.65)
Secukinumab 150 mg	IL-17 inhibitor	1.41 (1.32, 1.55)	1.52 (1.40, 1.67)	2.35 (2.03, 2.75)	6.42 (4.97, 8.51)
Adalimumab 40 mg	TNFi	1.43 (1.34, 1.55)	1.52 (1.42, 1.63)	2.20 (1.98, 2.47)	5.02 (4.21, 6.04)
Ustekinumab 45 or 90 mg	IL-12/23 inhibitor	1.42 (1.33, 1.54)	1.53 (1.44, 1.65)	2.26 (2.04, 2.53)	5.40 (4.55, 6.50)
Ustekinumab 90 mg	IL-12/23 inhibitor	1.42 (1.34, 1.53)	1.54 (1.41, 1.71)	2.41 (2.07, 2.87)	6.84 (5.19, 9.32)
Tildrakizumab 200 mg	IL-23 inhibitor	1.51 (1.38, 1.72)	1.71 (1.53, 1.96)	2.86 (2.36, 3.56)	7.78 (5.66, 11.07)
Tildrakizumab 100 mg	IL-23 inhibitor	1.53 (1.39, 1.75)	1.75 (1.55, 2.01)	2.82 (2.33, 3.51)	7.66 (5.59, 10.84)
Deucravacitinib 6 mg	Nonbiologic	1.71 (1.53, 1.95)	2.07 (1.79, 2.45)	3.61 (2.90, 4.66)	9.74 (6.97, 14.12)
Etanercept 50 mg BIW	TNFi	1.76 (1.62, 1.92)	2.27 (2.08, 2.51)	4.76 (4.14, 5.56)	16.89 (13.28, 21.87)
Methotrexate	Nonbiologic	2.29 (1.95, 2.77)	2.91 (2.40, 3.66)	6.29 (4.70, 8.80)	21.30 (13.10, 37.14)
Etanercept 25 mg BIW/50 mg QW	TNFi	1.99 (1.72, 2.41)	2.96 (2.35, 3.89)	7.08 (4.90, 10.95)	29.33 (15.71, 62.07)
Apremilast 30 mg	Nonbiologic	2.42 (2.12, 2.83)	3.60 (3.03, 4.38)	9.04 (7.00, 12.17)	43.69 (27.92, 75.26)

BIW twice weekly; *CI* confidence interval; *IL* interleukin; *PASI* Psoriasis Area and Severity Index; *QW* once weekly; *Q2W* every 2 weeks; *Q4W* every 4 weeks; *Q8W* every 8 weeks; *TNFi* tumor necrosis factor inhibitor

Table S9. Number needed to treat: probability of achieving PASI 50, 75, 90, and 100 response probabilities at 24–28 weeks, by treatment.

Treatment	Treatment Class	PASI-50, median % (95% CI)	PASI-75, median, % (95% CI)	PASI-90, median % (95% CI)	PASI-100, median % (95% CI)
Risankizumab 150 mg	IL-23 inhibitor	1.23 (1.19, 1.29)	1.14 (1.11, 1.19)	1.24 (1.18, 1.32)	1.83 (1.63, 2.06)
Bimekizumab 320 mg Q4W> Q8W	IL-17 inhibitor	1.24 (1.20, 1.31)	1.17 (1.12, 1.24)	1.22 (1.15, 1.32)	1.61 (1.43, 1.86)
Ixekizumab 80 mg Q2W>Q4W	IL-17 inhibitor	1.26 (1.21, 1.33)	1.20 (1.15, 1.27)	1.30 (1.22, 1.39)	1.87 (1.66, 2.13)
Guselkumab 100 mg	IL-23 inhibitor	1.26 (1.21, 1.33)	1.20 (1.16, 1.26)	1.34 (1.28, 1.42)	2.21 (2.00, 2.47)
Brodalumab 210 mg	IL-17 inhibitor	1.29 (1.23, 1.37)	1.25 (1.19, 1.34)	1.37 (1.28, 1.49)	1.97 (1.75, 2.25)
Secukinumab 300 mg	IL-17 inhibitor	1.30 (1.24, 1.38)	1.28 (1.23, 1.34)	1.48 (1.40, 1.57)	2.49 (2.27, 2.77)
Ustekinumab 90 mg	IL-12/23 inhibitor	1.35 (1.29, 1.44)	1.46 (1.36, 1.59)	1.99 (1.78, 2.25)	3.72 (3.14, 4.53)
Secukinumab 150 mg	IL-17 inhibitor	1.41 (1.31, 1.55)	1.47 (1.37, 1.60)	1.98 (1.79, 2.24)	4.44 (3.72, 5.49)
Ustekinumab 45 or 90 mg	IL-12/23 inhibitor	1.42 (1.32, 1.55)	1.48 (1.39, 1.58)	1.79 (1.66, 1.95)	3.33 (2.94, 3.80)
Tildrakizumab 200 mg	IL-23 inhibitor	1.43 (1.32, 1.58)	1.49 (1.39, 1.63)	1.90 (1.71, 2.13)	3.69 (3.11, 4.45)
Tildrakizumab 100 mg	IL-23 inhibitor	1.44 (1.34, 1.60)	1.52 (1.41, 1.66)	2.07 (1.85, 2.35)	4.58 (3.75, 5.65)
Infliximab 5 mg/kg	TNFi	1.53 (1.41, 1.70)	1.52 (1.40, 1.69)	2.05 (1.80, 2.39)	4.24 (3.13, 6.08)
Adalimumab 40 mg	TNFi	1.46 (1.35, 1.62)	1.55 (1.44, 1.69)	1.96 (1.77, 2.21)	3.86 (3.26, 4.65)
Deucravacitinib 6 mg	Nonbiologic	1.61 (1.48, 1.78)	1.76 (1.60, 1.95)	2.81 (2.44, 3.29)	6.68 (5.35, 8.50)
Etanercept 50 mg BIW	TNFi	1.79 (1.57, 2.12)	2.09 (1.88, 2.35)	3.38 (2.92, 4.01)	9.87 (7.68, 13.13)
Methotrexate	Nonbiologic	1.90 (1.60, 2.42)	2.29 (1.81, 3.09)	3.92 (2.74, 6.00)	11.23 (6.23, 22.88)
Etanercept 25 mg BIW/50 mg QW	TNFi	2.15 (1.74, 2.91)	2.68 (2.14, 3.54)	4.45 (3.07, 7.03)	13.44 (7.23, 28.47)
Apremilast 30 mg	Nonbiologic	2.70 (2.31, 3.24)	3.52 (2.96, 4.29)	6.06 (4.82, 7.87)	19.09 (13.18, 28.88)

BIW twice weekly; *CI* confidence interval; *IL* interleukin; *PASI* Psoriasis Area and Severity Index; *QW* once weekly; *Q2W* every 2 weeks; *Q4W* every 4 weeks; *Q8W* every 8 weeks; *TNFi* tumor necrosis factor inhibitor

Table S10. Number needed to treat: probability of achieving PASI 50, 75, 90, and 100 response probabilities at 44–60 weeks, by treatment.

Treatment	Treatment Class	PASI-50, median % (95% CI)	PASI-75, median, % (95% CI)	PASI-90, median % (95% CI)	PASI-100, median % (95% CI)
Risankizumab 150 mg	IL-23 inhibitor	1.26 (1.21, 1.33)	1.18 (1.13, 1.22)	1.25 (1.19, 1.31)	1.68 (1.55, 1.83)
Guselkumab 100 mg	IL-23 inhibitor	1.29 (1.23, 1.38)	1.23 (1.17, 1.30)	1.35 (1.28, 1.46)	2.12 (1.89, 2.42)
Bimekizumab 320 mg Q4W> Q8W	IL-17 inhibitor	1.31 (1.23, 1.44)	1.25 (1.16, 1.39)	1.33 (1.20, 1.51)	1.87 (1.57, 2.33)
Ixekizumab 80 mg Q2W>Q4W	IL-17 inhibitor	1.34 (1.26, 1.46)	1.29 (1.22, 1.39)	1.42 (1.33, 1.56)	1.94 (1.74, 2.23)
Brodalumab 210 mg	IL-17 inhibitor	1.37 (1.28, 1.50)	1.34 (1.27, 1.42)	1.39 (1.31, 1.48)	1.85 (1.68, 2.03)
Secukinumab 300 mg	IL-17 inhibitor	1.42 (1.32, 1.57)	1.42 (1.34, 1.52)	1.69 (1.58, 1.83)	2.76 (2.48, 3.12)
Ustekinumab 45 or 90 mg	IL-12/23 inhibitor	1.57 (1.40, 1.81)	1.63 (1.52, 1.75)	2.08 (1.92, 2.26)	3.46 (3.08, 3.89)
Deucravacitinib 6 mg	Nonbiologic	1.62 (1.46, 1.83)	1.68 (1.49, 1.95)	2.33 (1.95, 2.87)	4.99 (3.73, 6.88)
Adalimumab 40 mg	TNFi	1.68 (1.47, 2.04)	1.78 (1.57, 2.07)	2.22 (1.90, 2.67)	4.39 (3.44, 5.83)
Secukinumab 150 mg	IL-17 inhibitor	1.69 (1.48, 2.03)	1.80 (1.63, 2.03)	2.54 (2.22, 2.98)	4.99 (4.08, 6.29)
Infliximab 5 mg/kg	TNFi	2.00 (1.74, 2.48)	1.99 (1.73, 2.44)	2.68 (2.23, 3.46)	5.69 (3.82, 9.47)
Etanercept 50 mg BIW	TNFi	1.92 (1.61, 2.46)	2.11 (1.82, 2.55)	3.31 (2.69, 4.29)	9.38 (6.65, 14.22)
Apremilast 30 mg	Nonbiologic	2.10 (1.67, 2.90)	2.38 (1.81, 3.45)	3.40 (2.23, 5.90)	7.95 (4.05, 18.62)
Methotrexate	Nonbiologic	2.33 (1.83, 3.25)	2.60 (1.96, 3.69)	3.90 (2.70, 6.11)	9.59 (5.18, 20.21)

BIW twice weekly; *CI* confidence interval; *IL* interleukin; *PASI* Psoriasis Area and Severity Index; *Q2W* every 2 weeks; *Q4W* every 4 weeks; *Q8W* every 8 weeks; *TNFi* tumor necrosis factor inhibitor

Table S11. Risk of bias summary of studies included in main analysis.

Trial	Randomization Process	Deviations From Intended Interventions	Missing Outcome Data	Measurement of the Outcome	Selection of the Reported Results	Overall Bias
ACCEPT [29]	Low	Low	Low	Low	Low	Low
AMAGINE 1 [32]	Low	High	Some concerns	Low	Low	High
AMAGINE 2 [9]	Low	Low	Low	Low	Low	Low
AMAGINE 3 [9]	Low	Low	Low	Low	Low	Low
BE RADIANT [4]	Low	Low	Low	Low	Low	Low
BE READY [35]	Low	Low	Low	Low	Low	Low
BE SURE [24]	Low	Low	Low	Low	Low	Low
BE VIVID [36]	Low	Low	Low	Low	Low	Low
Blauvelt, 2021 [37]	Some concerns	Low	Low	Some concerns	Low	Some concerns
BRIDGE [38]	Low	Low	Low	Low	Low	Low
CHAMPION [44]	Low	Some concerns	Low	Low	Low	Some concerns
CLEAR [25, 26]	Some concerns	Some concerns	Low	Some concerns	Some concerns	Some concerns
ECLIPSE [27]	Low	Low	Low	Low	Low	Low
ERASURE [26]	Low	Low	Low	Low	Low	Low
ESTEEM 1 [49]	High	Low	Low	Some concerns	Some concerns	High
ESTEEM 2 [50]	Some concerns	Low	Some concerns	Some concerns	Some concerns	Some concerns
Etanercept Study Group [51]	Low	Low	Low	Low	Low	Low
EXPRESS [52]	Low	Low	Low	Low	Low	Low
EXPRESS II [53]	Low	Low	Low	Low	Low	Low
FEATURE [54, 55]	Low	Low	Low	Low	Low	Low
FIXTURE [26]	Low	Low	Low	Low	Low	Low
IMMerge [28]	Low	Some concerns	Low	Low	Low	Some concerns
IMMhance [62]	Low	Some concerns	Low	Low	Low	Some concerns
IMMvent [5]	Low	Low	Low	Low	Low	Low
IXORA-S [11]	Some concerns	Low	Low	Low	Some concerns	Some concerns
LIBERATE [6]	Low	Some concerns	Low	Some concerns	Some concerns	Some concerns

M10-114 [67]	Some concerns	Low	Low	Some concerns	Some concerns	Some concerns
M10-315 [68]	Some concerns	Low	Low	Some concerns	Low	Some concerns
METOP [104]	Low	Low	Low	Low	Low	Low
OPT Compare Study [74]	Some concerns	Low	Low	Some concerns	Low	Some concerns
ORION [75]	Low	Low	High	Some concerns	Low	High
PHOENIX 1 [79]	Low	Low	Low	Low	Low	Low
PHOENIX 2 [80]	Low	Low	Low	Low	Low	Low
POETYK PSO-1 [1]	Low	Low	Low	Some concerns	Low	Some concerns
POETYK PSO-2 [2]	Low	Low	Low	Some concerns	Low	Some concerns
Reich 2020 [83]	Some concerns	High	High	Low	Low	High
RESTORE 1 [84]	Low	High	High	Some concerns	Low	High
RESURFACE 1 [7]	Low	Low	Low	Low	Low	Low
RESURFACE 2 [7]	Low	Low	Low	Low	Low	Low
REVEAL [85]	Low	Low	Low	Some concerns	Some concerns	Low
SPIRIT [88]	Some concerns	Low	High	Low	Low	High
UltIMMa-1 [3]	Low	Low	Low	Low	Low	Low
UltIMMa-2 [3]	Low	Low	Low	Low	Low	Low
UNCOVER 1 [92]	Low	Low	Low	Some concerns	Low	Some concerns
UNCOVER 2 [93]	Low	Low	Low	Some concerns	Low	Some concerns
UNCOVER 3 [93]	Low	Low	Low	Some concerns	Low	Some concerns
VOYAGE 1 [100]	Low	Low	Low	Some concerns	Some concerns	Some concerns
VOYAGE 2 [101]	Low	Low	Low	Some concerns	Some concerns	Some concerns