Table SI. Demographic and clinical characteristics of patients in the FAS and IGA >1 subgroup

	FAS		IGA >1 subgroup	
	Dupilumab + TCS (*n* = 83)	Placebo + TCS (*n* = 79)	Dupilumab + TCS (*n* = 60)	Placebo + TCS (*n* = 76)
Age, mean (SD), years	3.9 (1.2)	3.8 (1.3)	4.00 (1.2)	3.80 (1.2)
≥6 months to <2 years, *n* (%)	6 (7.2)	5 (6.3)	4 (6.7)	4 (5.3)
≥2 years to <6 years, *n* (%)	77 (92.8)	74 (93.7)	56 (93.3)	72 (94.7)
Gender (male), *n* (%)	44 (53.0)	55 (69.6)	35 (58.3)	53 (69.7)
Ethnicity, *n* (%)				
Hispanic or Latino	9 (11.4)	11 (13.3)	11 (18.3)	8 (10.5)
Race, *n* (%)				
White	58 (69.9)	53 (67.1)	38 (63.3)	50 (65.8)
Black or African American	14 (16.9)	16 (20.3)	13 (21.7)	16 (21.1)
Asian	6 (7.2)	4 (5.1)	4 (6.7)	4 (5.3)
Other	3 (3.6)	4 (5.1)	3 (5.0)	4 (5.3)
Weight, mean (SD), kg	17.1 (4.4)	16.7 (3.6)	17.26 (4.0)	16.71 (3.5)
5 to <15 kg, *n* (%)	26 (31.3)	25 (31.6)	16 (26.7)	24 (31.6)
15 to <30 kg, *n* (%)	57 (68.7)	54 (68.4)	44 (73.3)	52 (68.4)
Age at AD disease onset, *n* (%)				
<6 months	50 (60.2)	57 (72.2)	33 (55.0)	55 (72.4)
≥6 months	33 (39.8)	22 (27.8)	27 (45.0)	21 (27.6)
Duration of AD, mean (SD), years	3.4 (1.3)	3.4 (1.3)	3.4 (1.32)	3.5 (1.26)
Patients with IGA score 3, *n* (%)	20 (24.1)	17 (21.5)	6 (10.0)	15 (19.7)
Patients with IGA score 4, *n* (%)	63 (75.9)	62 (78.5)	54 (90.0)	61 (80.3)
EASI total score, mean (SD)	35.1 (13.9)	33.1 (12.2)	37.6 (14.2)	33.2 (12.3)
BSA involvement, mean (SD)	59.3 (22.5)	57.4 (20.9)	62.3 (21.9)	57.3 (21.0)
SCORAD total score, mean (SD)	72.7 (13.0)	72.2 (11.4)	75.3 (11.8)	72.4 (11.6)
WSI-NRS score, mean (SD)	7.5 (1.32)	7.6 (1.5)	7.6 (1.3)	7.6 (1.5)

POEM total score, mean (SD)	23.1 (4.5)	23.3 (4.04)	23.5 (4.1)	23.3 (4.1)
CDLQI total score, mean (SD)	17.5 (5.4) (*n* = 48)	17.7 (6.3) (*n* = 38)	16.6 (5.6)	17.5 (6.2)
IDQoL total score, mean (SD)	17.4 (5.4) (*n* = 35)	17.1 (5.4) (*n* = 41)	18.2 (5.1)	17.1 (5.4)
DFI, mean (SD)	17.2 (6.0)	17.6 (7.2)	17.3 (6.2)	17.5 (7.3)
Skin Pain NRS score, mean (SD)	6.8 (1.76)	7.2 (1.8)	6.9 (1.9)	7.1 (1.9)
Sleep Quality NRS score, mean (SD)	4.9 (1.9)	4.6 (2.1)	4.9 (2.0)	4.6 (2.1)
Caregiver Sleep Quality NRS, mean (SD)	5.1 (1.9)	4.7 (2.1)	5.1 (2.0)	4.7 (2.1)
GISS total, mean (SD)	9.7 (1.8)	9.6 (1.8)	10.0 (1.6)	9.7 (1.8)
CGID "very severe," *n* (%)	28 (33.7)	27 (34.2)	23 (38.3)	25 (32.9)
Current history of atopic comorbidities, *n* (%)[a]	66 (79.5)	65 (83.3)	60 (100)	75 (100)
Patients receiving prior systemic medications for AD, *n* (%)[a]	24 (28.9)	22 (28.2)	21 (35.0)	22 (29.3)

[a]Safety analysis set.

AD: atopic dermatitis; BSA: body surface area; CDLQI: Children's Dermatology Life Quality Index; CGID: Caregiver Global Assessment of Disease Severity; DFI: Dermatitis Family Impact; EASI: Eczema Area and Severity Index; FAS: full analysis set; GISS: Global Individual Signs Score; IDQoL: Infants' Dermatitis Quality of Life Index; IGA: Investigator's Global Assessment; NRS: Numerical Rating Scale; POEM: Patient-Oriented Eczema Measure; SCORAD: Scoring Atopic Dermatitis; SD: standard deviation; TCS: topical corticosteroids; WSI-NRS: Worst Scratch/Itch Numerical Rating Scale.

Table SII. Efficacy outcomes at week 16 in patients in the FAS and IGA >1 subgroup

	FAS			IGA >1 subgroup		
	Dupilumab + TCS (*n* = 83)	Placebo + TCS (*n* = 79)	*p* value	Dupilumab + TCS (*n* = 60)	Placebo + TCS (*n* = 76)	*p* value
IGA 0/1, *n* (%)	23 (27.7)	3 (3.9)	<0.0001	N/A	N/A	N/A
EASI-50, *n* (%)	57 (68.7)	16 (20.2)	<0.0001	34 (56.7)	13 (17.0)	<0.0001
EASI-75, *n* (%)	44 (53.0)	8 (10.7)	<0.0001	22 (36.7)	5 (7.2)	0.0002
EASI-90, *n* (%)	21 (25.3)	2 (2.8)	0.0001	4 (6.7)	1 (1.6)	0.1794
EASI LS mean percent change from baseline (SE)	−70.0 (4.9)	−19.6 (5.1)	<0.0001	−54.8 (6.7)	−11.9 (5.7)	<0.0001
LS mean percent change from baseline in SCORAD (SE)	−54.7 (3.4)	−16.2 (3.5)	<0.0001	−40.9 (4.4)	−9.9 (3.7)	<0.0001
SCORAD-50, *n* (%)	48 (57.8)	7 (9.2)	<0.0001	25 (41.7)	5 (7.0)	<0.0001
LS mean percent change from baseline in weekly average of daily WSI-NRS (SE)[a]	−49.4 (5.0)	−2.2 (5.2)	<0.0001	−38.5 (7.0)	0.9 (5.8)	<0.0001
WSI-NRS ≥3-point improvement, *n/NI* (%)	44/83 (53.3)	8/78 (9.9)	<0.0001	28/60 (46.0)	7/75 (9.0)	<0.0001
WSI-NRS ≥4-point improvement, *n/NI* (%)	40/83 (48.1)	7/78 (8.9)	<0.0001	25/60 (41.0)	6/75 (8.5)	0.0001
LS mean change from baseline in % BSA affected by AD (SE)	−35.00 (2.8)	−10.74 (2.9)	<0.0001	−26.84 (3.8)	−6.66 (3.2)	<0.0001
LS mean change from baseline in DFI	−10.48 (0.8)	−2.68 (0.8)	<0.0001	−8.60 (1.124)	−2.30 (0.938)	<0.0001
LS mean change from baseline in weekly	−3.93 (0.3)	−0.62 (0.3)	<0.0001	−3.37 (0.397)	−0.42 (0.326)	<0.0001

average of Skin Pain NRS						
LS mean change from baseline in GISS total	−4.5 (0.3)	−1.4 (0.3)	<0.0001	−3.24 (0.4)	−0.83 (0.351)	<0.0001
POEM ≥6-point improvement from baseline, *n/N* (%)	51/83 (61.4)	15/79 (18.7)	<0.0001	31/60 (51.7)	13/76 (16.8)	<0.0001
CDLQI ≥6-point improvement from baseline, *n/N* (%)	54/82 (65.5)	8/77 (10.9)	<0.0001	33/59 (55.5)	8/74 (11.4)	<0.0001
LS mean change from baseline in CDLQI or IDQoL (SE)[a]	−10.6 (0.8)	−2.3 (0.8)	<0.0001	−8.8 (1.1)	−1.9 (0.9)	<0.0001
CGID "no" or "mild" symptoms, *n* (%)	43 (51.8)	4 (5.5)	<0.0001	22 (36.7)	3 (4.4)	<0.0001

[a]Depending on the patient's age (IDQoL for patients aged <4 years; CDLQI for patients aged ≥4 years).

AD: atopic dermatitis; BSA: body surface area; CDLQI: Children's Dermatology Life Quality Index; CGID: Caregiver Global Assessment of Disease Severity; DFI: Dermatitis Family Impact; EASI: Eczema Area and Severity Index; EASI-50/75/90: 50/75/90% improvement from baseline in EASI; FAS: full analysis set; GISS: Global Individual Signs Score; IDQoL: Infants' Dermatitis Quality of Life Index; IGA: Investigator's Global Assessment; LS: least squares; N/A: not applicable; NI: stands for number of patients with the non-missing value at week 16; NRS: Numerical Rating Scale; POEM: Patient-Oriented Eczema Measure; SCORAD: Scoring Atopic Dermatitis; SE: standard error; TCS: topical corticosteroids; WSI-NRS: Worst Scratch/Itch Numerical rating Scale.

Table SIII. Number of patients with AEs reported in the safety analysis set and IGA >1 subgroup at week 16

	SAS		IGA >1 subgroup	
	Dupilumab + TCS (*n* = 83)	Placebo + TCS (*n* = 78)	Dupilumab + TCS (*n* = 60)	Placebo + TCS (*n* = 75)
Patients with ≥1 TEAE, *n* (%)	53 (63.9)	58 (74.4)	39 (65.0)	55 (73.3)
TEAEs reported in ≥3% of patients, *n* (%)[a]				
Infections and infestations	35 (42.2)	40 (51.3)	25 (41.7)	37 (49.3)
Nasopharyngitis	7 (8.4)	7 (9.0)	4 (6.7)	6 (8.0)
Upper respiratory tract infection	5 (6.0)	6 (7.7)	3 (5.0)	5 (6.7)
Impetigo	3 (3.6)	6 (7.7)	2 (3.3)	6 (8.0)
Skin and subcutaneous tissue disorders	17 (20.5)	28 (35.9)	14 (23.3)	28 (37.3)
Exacerbation of AD	11 (13.3)	25 (32.1)	9 (15.0)	25 (33.3)
Urticaria	1 (1.2)	4 (5.1)	1 (1.7)	4 (5.3)
Respiratory, thoracic and mediastinal disorders	9 (10.8)	15 (19.2)	6 (10.0)	15 (20.0)
Asthma	3 (3.6)	5 (6.4)	2 (3.3)	5 (6.7)
Cough	0	5 (6.4)	0	5 (6.7)
Blood and lymphatic system disorders	6 (7.2)	7 (9.0)	5 (8.3)	7 (9.3)
Lymphadenopathy	3 (3.6)	6 (7.7)	2 (3.3)	6 (8.0)
General disorders and administration site conditions	5 (6.0)	9 (11.5)	3 (5.0)	9 (12.0)
Pyrexia	1 (1.2)	7 (9.0)	1 (1.7)	7 (9.3)
Patients with ≥1 serious TEAE, *n* (%)[b]	0	4 (5.1)	0	3 (4.0)
Patients with TEAE leading to dose withdrawal permanently, *n* (%)	1 (1.2)[c]	1 (1.3)[d]	1 (1.7)[c]	1 (1.3)[d]
Patients with ≥1 rescue medication, *n* (%)[e]	16 (19.3)	49 (62.8)	16 (26.7)	49 (65.3)
TCS, *n* (%)	16 (19.3)	49 (62.8)	16 (26.7)	49 (65.3)
Potent, combinations with antiseptics	0	1 (1.3)	0	1 (1.3)
Other topical agents excluding corticosteroids, *n* (%)	1 (1.2)	4 (5.1)	1 (1.7)	4 (5.3)
Systemic corticosteroids, *n* (%)[f]	1 (1.2)	2 (2.6)	1 (1.7)	2 (2.7)

[a]According to primary System Organ Class, and Preferred Term; [b]The only serious TEAEs, which occurred exclusively in the placebo groups, were exacerbation of AD; [c]Exacerbation of AD; [d]Nightmares due to blood withdrawal; [e]Medium- or high-potency TCS, systemic corticosteroids, non-steroidal immunosuppressants (e.g. cyclosporine, methotrexate, mycophenolate mofetil, azathioprine), crisaborole, or topical calcineurin inhibitors could be provided to study patients as rescue medication after day 14; [f]Systemic corticosteroids were the only systemic agent used as rescue medication.

AD: atopic dermatitis; AE, adverse event; IGA: Investigator's Global Assessment; SAS, safety analysis set; TCS, topical corticosteroids; TEAE: treatment-emergent adverse effect.