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| **Table S2. Characteristics of the included *in vivo* preclinical studies** |
| **Author, year** | **Species (sex, n: experimental/control group)** | **Weight (g)** | **Model (method)** | **Method of administration** | **Outcome indicator** |
| **E** | **C** |
| Jain, *et al* 2016 | BALB/c mice(male, N/A) | N/A | Psoriasis model(42 mg/d IMQ, 8 d) | 100 mg/d, TAC-CUR liposphere gel, g.t.; IMQ applied on the back, 42 mg/d, 6 d | CON group: Vaseline applied on the back, 42 mg/d, 6 dIMQ group: IMQ applied on the back, 42 mg/d, 6 d**TAC** group: TAC 100 mg/d; IMQ applied on the back, 42 mg/d, 6 d | 1. PASI2. Histology staining3. Epidermal thickness4. IL-175. TNF-α6. IL-227. IL-23 |
| Jia, *et al* 2017 | BALB/c mice(male/female, 16/16) | 19–21 | Psoriasis model(42 mg/d 4% IMQ, 6 d) | 3 mL turmeric soup, qd, i.g.; 4% IMQ applied on the back, 42 mg/d, 14 d | CON group: 3 mL distilled water, qd, p.o.; cream applied on the back, 14 dIMQ group: 43 mL distilled water, qd, p.o.; 4% IMQ applied on the back, 42 mg/d, 14 d | 1. PASI2. Epidermal thickness3. Histology staining4. IL-65. IL-86. TNF-α |
| Mao, *et al* 2017 | BALB/c mice(male, N/A) | 8–11 | Psoriasis model (4 mg/d IMQ, 8 d) | CUR-NPs-gel, 500 µg, qid, five times, g.t.; IMQ applied on the back, 4 mg/d, 8 d | CON group: N/A**Clob** group: N/A; IMQ applied on the back, 4 mg/d, 8 d | 1. PASI2. Epidermal thickness3. Histology staining
2. IHC
3. TNF-α
4. IL-6
5. NF-κB
 |
| Sun, *et al* 2017 | C57BL/6 mice(female, N/A) | 7–9 | Psoriasis model (62.5 mg/d 5% IMQ, 10 d) | 50 nm Cur-NPs, 0.25 mg/d/mouse, g.t.; 5% IMQ applied on the back, 62.5 mg/d, 10 d | CON group: N/AIMQ group: IMQ applied on the right ear, 25 mg/cm2/d, 10 d**TAC** group: 45 mg/cm2/d, IMQ applied on the right ear, 25 mg/cm2/d, 10 d | 1. PASI2. Ear thickness3. Spleen weight4. IL-17F5. IL-226. IL-67. IL-238. IL-69. IL-1β10. TNF-α11. IFN-γ12. STAT3 |
| Qu, 2018 | BALB/c mice(female, 15/15) | 18–20 | Psoriasis model (42 mg/d 4% IMQ, 6 d) | 400 mg/kg turmeric soup qd, i.g.; 4% IMQ applied on the back, 42 mg/d, 6 d | CON group**:** distilled water, qd, p.o.; Vaseline applied on the back, 6 dIMQ group: distilled water, qd, p.o.; 4% IMQ applied on the back, 42 mg/d, 6 d | 1. PASI2. HE dye3. ASC4. NLRP3 |
| Zhang, *et al* 2019 | C57BL/6 mice(male, 18/12) | 8–11 | Psoriasis model (25 mg/cm2/d IMQ, 10 d) | HA-ES, 0.3 mL/cm2, g.t.;IMQ applied on the right ear, 25 mg/cm2/d, 10 d | CON group: no treatmentIMQ group: IMQ applied on the right ear, 25 mg/cm2/d, 10 d**CP** group: 45 mg/cm2/d; IMQ applied on the right ear, 25 mg/cm2/d, 10 d | 1. PASI2. Histology staining3. Spleen index4. IL-17A5. IL-17F6. IL-227. IL-1β8. TNF-α9. CCR6 |
| Nan, *et al* 2020 | C57BL/6 mice(female, N/A) | N/A | Psoriasis model (62.5 mg/d 5% IMQ, 10 d) | Cur-GA-silica, 22.78 mg/d, g.t.; 5% IMQ applied on the back, 62.5 mg/d, 7 d | CON group: purified water topically applied on the dorsal skin, 7 dIMQ group: 5% IMQ applied on the back, 62.5 mg/d, 7 d**Cur RDP** group: Cur raw drug powder applied on the dorsal skin 4 h after IMQ, 7 d | 1. PASI2. Epidermal thickness3. IL-17 |
| Badanthadka,*et al* 2021 | C57BL/6, BALB/c, Swiss albino mice(female, 6/6) | 8–12 | Psoriasis model (62.5 mg/d 5% IMQ, 6d) | 1% Cur gel, 150 mg on the back, 12.5 mg on the right ear, g.t.; IMQ, 62.5 mg on the back and 5 mg on the right ear, 6 d | CON group: Vaseline, 62.5 mg on the back and 5 mg on the right ear, 6 dIMQ group: 5% IMQ, 62.5 mg on the back and 5 mg on the right ear, 6 d**Clob** group: 120 mg on the back and 10 mg on the right ear, 6 d | 1. PASI
2. Skin thickness
3. Spleen weight
4. Superoxide dismutase
5. Catalase
6. Glutathione
 |
| **Abbreviations:** i.g., intragastrically; p.o., per os; d, day; qd, once a day; qid, quarter in die; g.t., external use; E, Experimental group; C, Control group; HE, hematoxylin and eosin; ASC, apoptosis-associated speck-like protein containing a caspase recruitment domain; NLRP3, nucleotide-binding domain and leucine-rich repeat containing protein-3; IL, interleukin; TNF, tumor necrosis factor; CCR6, C-C chemokine receptor 6; IHC, immunohistochemistry; TAC-CUR, tacrolimus and curcumin co-loading; TAC, tacrolimus; CUR-NPs, curcumin-loaded nanoparticles; CUR-NPs-gel, curcumin-loaded nanoparticles incorporated in silk fibroin hydrogel; Cur, curcumin; PASI, Psoriasis Area Severity Index; HA-ES, curcumin-loaded hyaluronic acid-modified ethosomes; IMQ, imiquimod ointment; CP, clobetasol propionate cream; Cur-GA-silica, curcumin and glycyrrhizic acid-loaded Syloid® 244FP EU produced using smartPearls technology; Clob, clobetasol; NF-κB, nuclear factor-κB. |