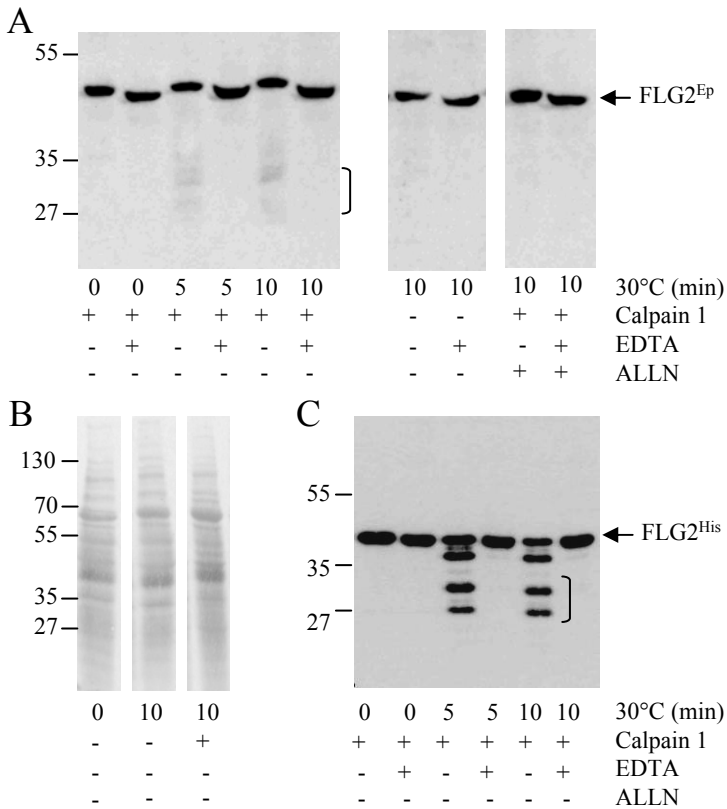
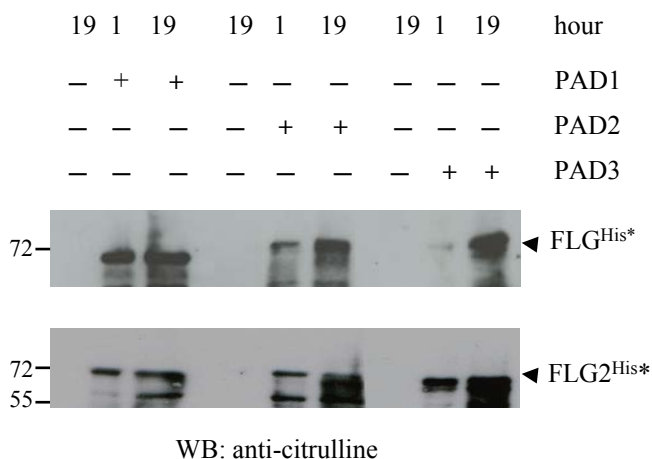


## Supplemental Fig. 1



**Degradation of the epidermal FLG2 by calpain 1.** A and B, proteins of human epidermis were extracted in an isotonic buffer containing Nonidet P-40 and incubated at 30°C in the presence or absence of added calpain 1, as indicated, for 0 to 10 min. When specified, either 10 mM EDTA or the calpain 1 inhibitor ALLN at a final concentration of 100  $\mu$ M was added before incubations. The reactions were stopped by the addition of Laemmli's sample buffer. Samples were then subjected to SDS-PAGE, and proteins were stained with Coomassie Blue (B) and immunoblotted with the anti-FLG2 antibodies (A). C, recombinant FLG2<sup>His</sup> was incubated at 30°C for the indicated time (in min) with calpain 1 in the absence or presence of 10 mM EDTA. The reactions were stopped by the addition of Laemmli's sample buffer. Samples were then immunoblotted with the anti-FLG2 antibodies. The arrows show the extracted epidermal FLG2 (FLG2<sup>Ep</sup>) and the full-length FLG2<sup>His</sup>. Peptides with similar masses between 25 and 30 kDa generated from both the epidermal and recombinant FLG2 are highlighted by brackets. Molecular masses of standards are indicated in kDa to the left.

## Supplemental Fig. 2



**Deimination of FLG<sup>His</sup> and FLG2<sup>His</sup> by human PAD1, 2 and 3.** Recombinant FLG<sup>His</sup> and FLG2<sup>His</sup> (100 ng/test) were incubated at 50°C in a 100 mM Tris-HCl (pH 7.6) buffer containing 10 mM CaCl<sub>2</sub> and 5 mM DTT for 1 and 19 h with either human PAD1, PAD2 or PAD3 (40 mU / test) and for 19 h without PAD, as indicated. The reactions were stopped by the addition of Laemmli's sample buffer. Samples were then analyzed by western blotting with the anti-citrulline antibody AMC, as previously described (Méchin, M. C., et al. (2005) *Cell Mol Life Sci* **62**, 1984-1995). Molecular masses of standards are indicated in kDa on the left. The fully deiminated proteins are indicated (FLG<sup>His\*</sup> and FLG2<sup>His\*</sup>).