

1 ***In vivo* applicability of *Neosartorya fischeri* antifungal protein 2 (NFAP2) in treatment of**
2 **vulvovaginal candidiasis**

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29 Running title: Treatment of vulvovaginal candidiasis with NFAP2

30 **TABLE S1** Composition of media used in this study.

| Description | Composition |
|--|--|
| R10 (Fibroblast cell culture medium) | RPMI 1640 (Lonza BE12-167F), 10 mM HEPES buffer (Biochrom-Merck L1613), 0.1% gentamicin (Gibco 15750-037), 10% heat-inactivated fetal calf serum (PAN Biotech P30-1502), 2 mM L-alanyl-L-glutamine (GlutaMAX, Gibco 35050-038) |
| SD (Sabouraud dextrose) | 4% glucose, 1% peptone, and 2% agar (w/v) if necessary |
| YEGK (Yeast extract glucose medium with KH_2PO_4) | 1% glucose; 1% KH_2PO_4 ; 0.5% yeast extract, and 2% agar (w/v) if necessary |
| YPD (Yeast extract peptone dextrose medium) | 1% yeast extract, 2% bacteriological peptone, 2% D-(+)-glucose, and 2 % (w/v) agar if necessary |

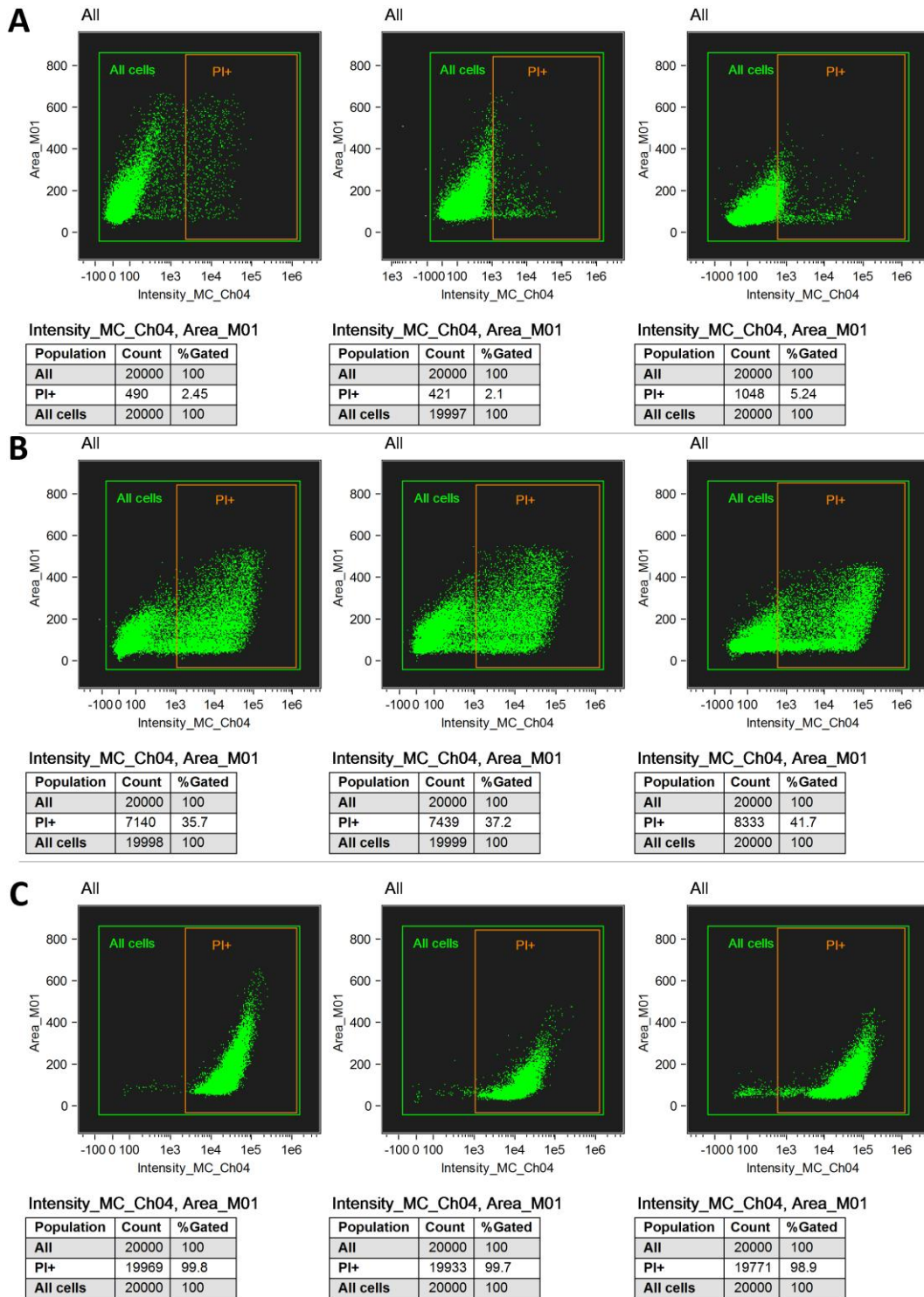
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32 **Table S2** Significance values from murine VVC model.

| Treatment 1 | Treatment 2 | p-value | Significance |
|---------------------------------------|---------------------|---------|-------------------|
| 35 mg/kg FLC | untreated | >0.9999 | non significant |
| 5 mg/kg/day FLC | untreated | >0.9999 | non significant |
| 800 mg/kg/day NFAP2 | untreated | 0.0177 | significant (*) |
| 800 mg/kg/day NFAP2 + 5 mg/kg/day FLC | untreated | 0.0017 | significant (**) |
| 5 mg/kg/day FLC | 35 mg/kg FLC | >0.9999 | non significant |
| 800 mg/kg/day NFAP2 | 35 mg/kg FLC | 0.0016 | significant (**) |
| 800 mg/kg/day NFAP2 + 5 mg/kg/day FLC | 35 mg/kg FLC | 0.0001 | significant (***) |
| 800 mg/kg/day NFAP2 | 5 mg/kg/day FLC | 0.0687 | non significant |
| 800 mg/kg/day NFAP2 + 5 mg/kg/day FLC | 5 mg/kg/day FLC | 0.0084 | significant (**) |
| 800 mg/kg/day NFAP2 + 5 mg/kg/day FLC | 800 mg/kg/day NFAP2 | >0.9999 | non significant |

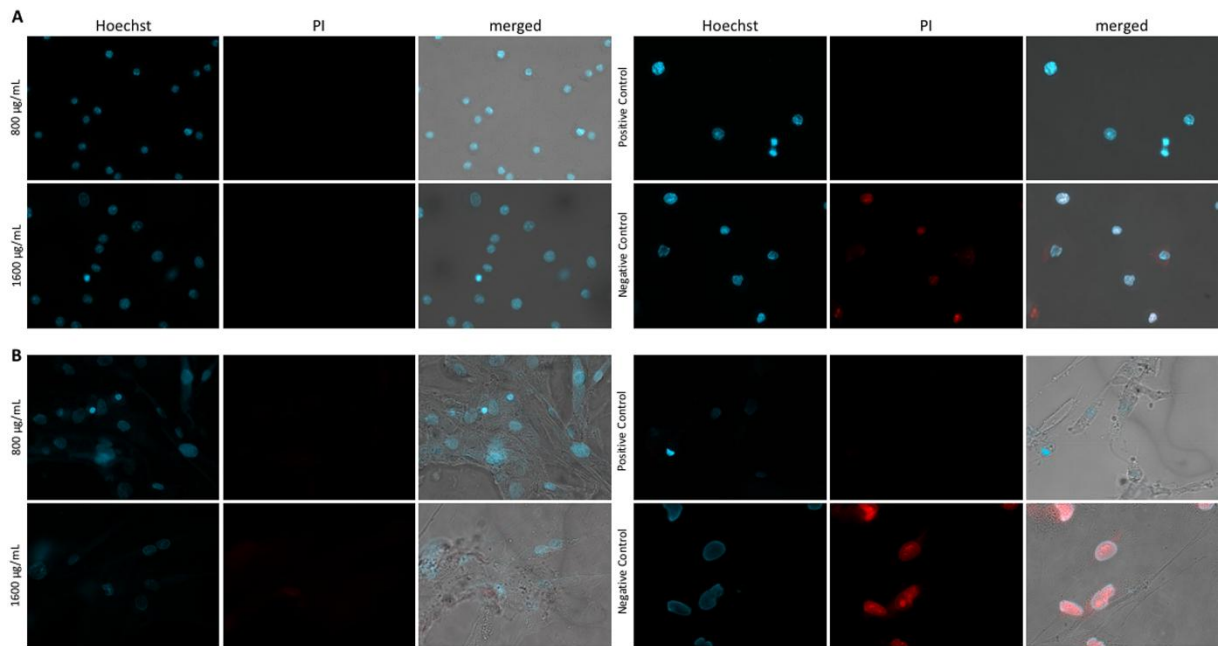
33 Abbreviations: FLC, fluconazole; NFAP2: *Neosartorya fischeri* antifungal protein 2.

34 * : $p \leq 0.05$, ** : $p \leq 0.005$, *** : $p \leq 0.0001$.



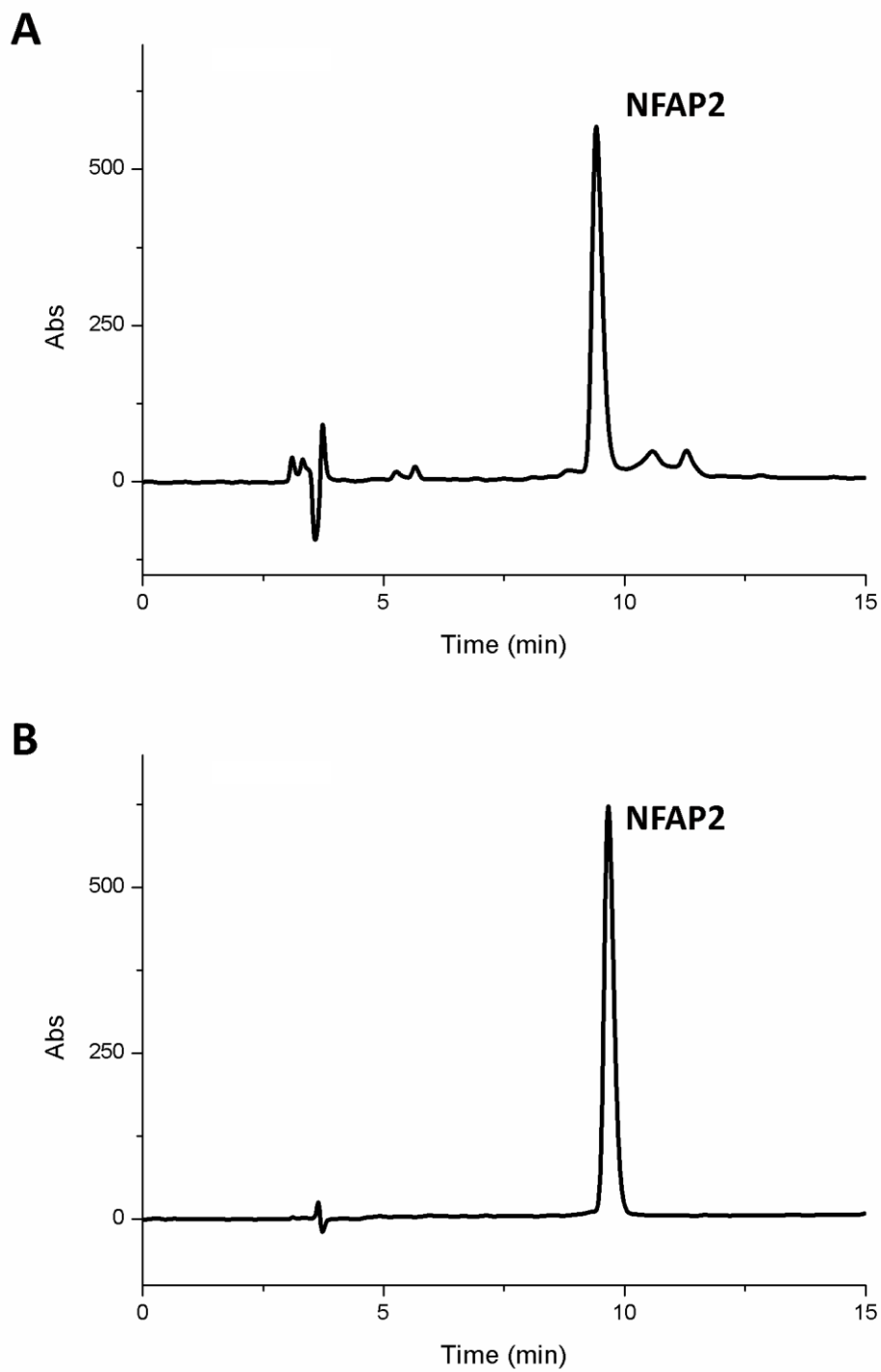
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36 **FIG S1** FACS analysis and quantification of PI-positive *C. albicans* 27700 cells after
 37 incubation for 24 hours at 30 °C under continuous shaking at 160 rpm (A) in RPMI 1640
 38 (Sigma-Aldrich, St Louis, MO, USA), (B) in RPMI 1640 supplemented with MIC of NFAP2
 39 (800 µg/ml), and (C) after treatment with 70% (v/v) ethanol for 10 min at 4 °C. Data represent
 40 the results from three independent experiments.



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42 **FIG S2** *In vitro* toxicity-testing of NFAP2 on primary HKC and HDF. Fluorescence staining
 43 with PI (red) and counterstaining with Hoechst (blue) of primary (A) HKC and (B) HDF after
 44 24 hours exposure to 800 µg/ml and 1600 µg/ml NFAP2. Untreated cells were used as living
 45 controls, and 50% ethanol-treated as dead control.



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47 **Fig S3** RP-HPLC chromatogram of recombinant NFAP2 produced by *P. chrysogenum* (A)

48 after cation-exchange chromatography, and (B) after the additional semipreparative RP-HPLC

49 purification step to reach the 100% purity.