**Supporting information**

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**Supplement Figure 1.**

A. Calcium imaging on HEK 293 cells stably expressing hTRPA1. Application of AITC induced a large increase in intracellular calcium in these cells. B. Representative traces from individual cells in experiments explained for A. C- F. Representative calcium imaging traces from individual cells displaying responses to 30 µM (C), 100 µM (D), 300 µM (E) and 1 mM CQ (F) in cells expressing hTRPA1. Functional expression of hTRPA1 was verified by application of carvacrol. G. Representative calcium imaging traces from individual cells displaying responses to 1 mM CQ in untransfected HEK 293T cells. The ionophore inomycin was applied at the end of the experiment in order identify intact cells. H. Representative calcium imaging traces from individual cells displaying responses to 300 µM CQ + 10 µM A967079. Functional expression of hTRPA1 was verified by application of carvacrol.

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**Supplement Figure 2.**

A. Whole-Cell patch clamp recording on a non-transfected HEK 293T cell showing no activation of membrane currents following application of 1 mM CQ and/or UVA-light. The cell was held at – 60 mV. B. Whole-Cell patch clamp recording displaying a partial inhibition of an AITC-induced inward current in an hTRPA1-expressing cell. CQ was co-applied with AITC once the inward current induced by application of AITC alone had reached a steady-state. Note that inhibition by CQ was reversible. The cell was held at – 60 mV. C. Calcium-imaging on hTRPA1-expressing cells treated with 1 mM CQ (green) or 1 mM hydroxychloroquine (HCQ, blue). D. Original current trace on an hTRPA1-expressing cell treated with 1 mM HCQ alone or together UVA-light.

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**Supplement Figure 3.**

A. Representative calcium imaging traces from individual HEK 293T cells expressing MrgprA3 displaying responses 1 mM CQ. B and D. Representative calcium imaging traces from individual untransfected (B) and mTRPA1-expressing CHO cells displaying responses 1 mM CQ. Functional expression of hTRPA1 was verified by application of carvacrol.

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**Supplement Figure 4.**

Mean calcium increase in mouse DRG neurons evoked by 1 mM CQ alone (black) or in combination with A967079 (red, n= 216), BCTC (blue, n= 88). For improved visibility, note that only the average responses were depicted without the corresponding lines displaying S.E.M.

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**Supplemental Figure 5.**

A and B. Representative calcium imaging traces from individual HEK 293T cells expressing hTRPA1 wildtype (A) or the mutant hTRPA1-3C (B). The traces display effects induced by co-application of 300 µM CQ and 1 mM DTT. Functional expression of hTRPA1 was verified by application of carvacrol.

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**Supplemental Figure 6.**

A. Calcium imaging on HEK 293 cells stably expressing hTRPV1. Application of 100 nM capsaicin induced a large increase in intracellular calcium in these cells. B. Representative traces from individual cells in experiments explained for A. C- E. Representative calcium imaging traces from individual cells displaying responses to 100 µM (C), 300 µM (D) and 1 mM CQ (E) in cells expressing hTRPV1. Functional expression of hTRPV1 was verified by application of capsaicin. F. Representative calcium imaging traces from individual cells displaying responses to 300 µM CQ + 100 BCTC. Functional expression of hTRPV1 was verified by application of capsaicin.

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**Supplemental Figure 7.**

A and B. Representative calcium imaging traces from individual cells displaying responses to pH 8.4 (A) or pH 8.4 + 300 µM CQ (B) in cells expressing hTRPA1. Functional expression of hTRPA1 was verified by application of carvacrol. C and D. Representative calcium imaging traces from individual cells displaying responses to pH 8.4 (A) or pH 8.4 + 300 µM CQ (B) in cells expressing hTRPV1. Functional expression of hTRPV1 was verified by application of capsaicin.