

Interleukin-1 and histamine are essential for inducing nickel-allergy in mice.

著者	Kanan Bando, Toshinobu Kuroishi, Shunji Sugawara, Yasuo Endo
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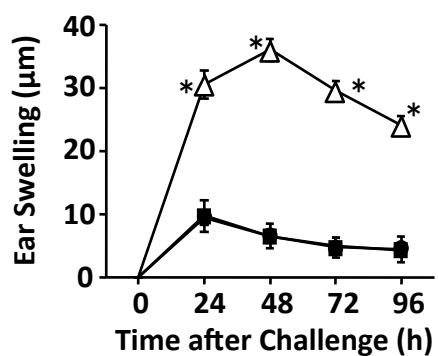
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Fig. 1

A In WT C57BL/6 Sensitization

- Ni 1 mM alone
- IL-1 β 50 μ g/ml alone
- △ Ni 1 mM + IL-1 β 50 μ g/ml

Challenge: Ni 1 mM



B In WT C57BL/6 Sensitization

- Ni 1 mM alone
- ◇ Ni 1 mM + IL-1 β 50 μ g/ml
- △ Ni 1 mM + IL-1 β 5 μ g/ml
- Ni 1 mM + IL-1 β 0.5 μ g/ml

Challenge: Ni 1 mM

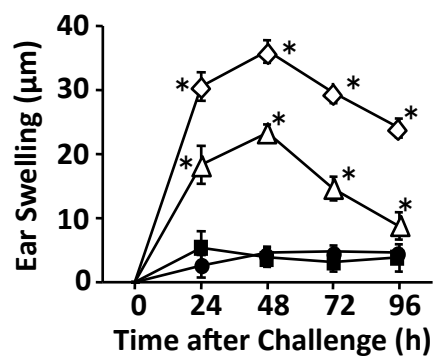


Fig. 2

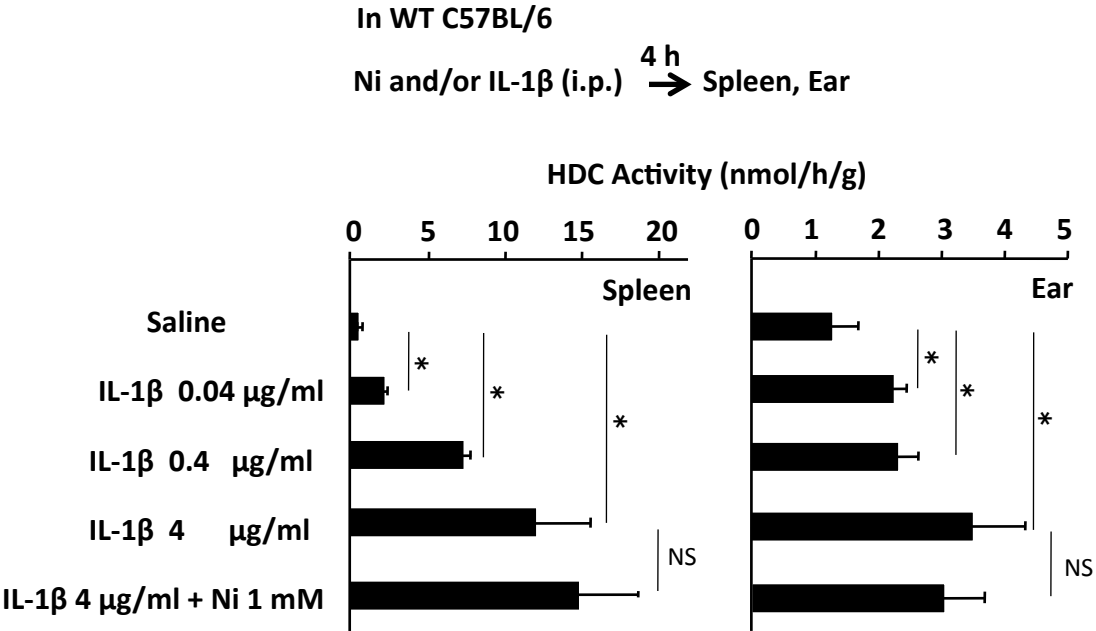
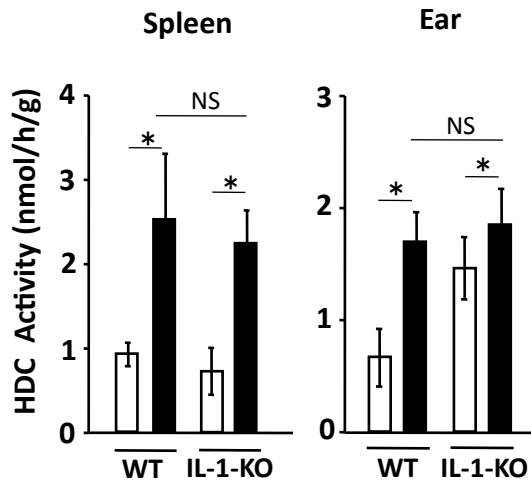


Fig. 3

A In WT Balb/c and IL-1-KO Balb/c

IL-1 β 4 μ g/ml (i.p.) $\xrightarrow{4\text{ h}}$ Spleen, Ear

□ Saline ■ IL-1 β



B In IL-1-KO Balb/c

Sensitization

Ni 1 mM
+ IL-1 β 4 μ g/ml \rightarrow

Challenge

◇ Ni 1 mM
△ Ni + Histamine 45 mM
○ Ni + IL-1 β 2.5 μ g/ml

Saline \rightarrow

□ Ni + IL-1 β 2.5 μ g/ml

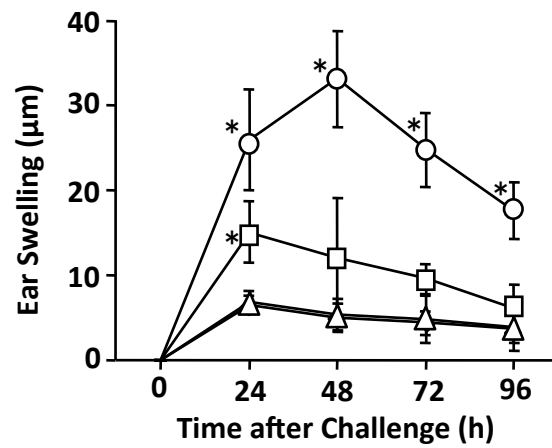
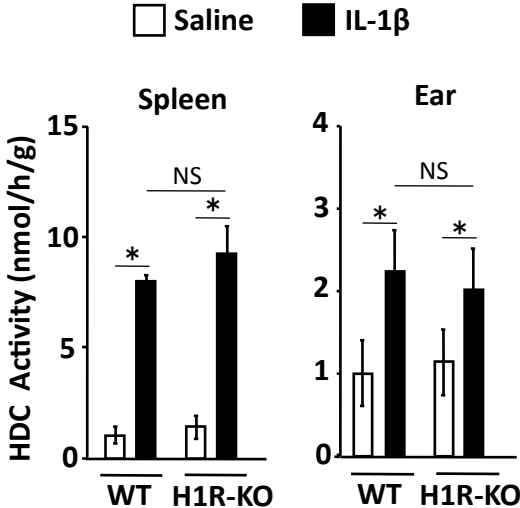


Fig. 4

A In WT C57BL/6 and H1R-KO C57BL/6

IL-1 β 4 μ g/ml (i.p.) \rightarrow 4 h Spleen, Ear



B In WT C57BL/6 and H1R-KO C57BL/6

Sensitization: Ni 1 mM + IL-1 β 4 μ g/ml

Challenge: Ni 1 mM

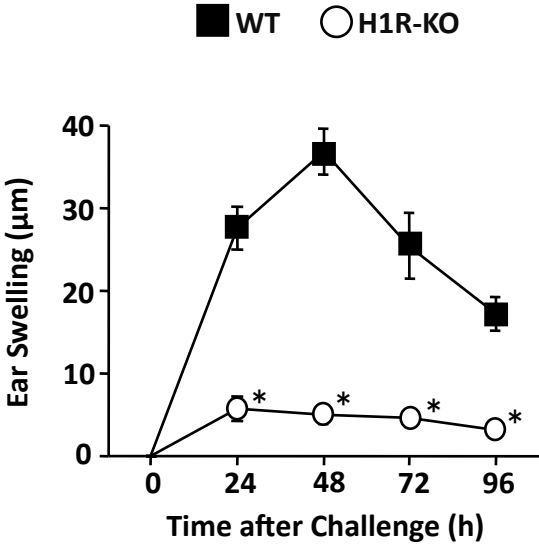
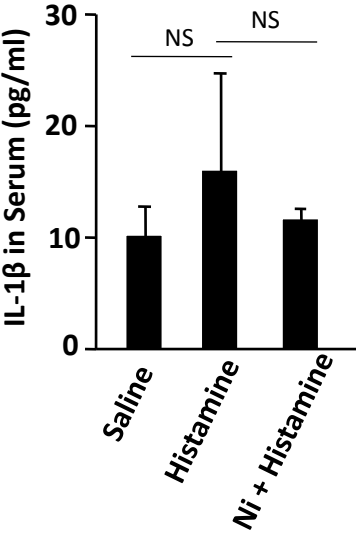


Fig. 5

A In WT C57BL/6

Ni 1mM
± Histamine 180mM (i.p.) 4 h → blood



B In WT C57BL/6

Sensitization

- Ni 1 mM
- Histamine 180 mM
- △ Ni 1mM + Histamine 180 mM

Challenge: Ni 1 mM

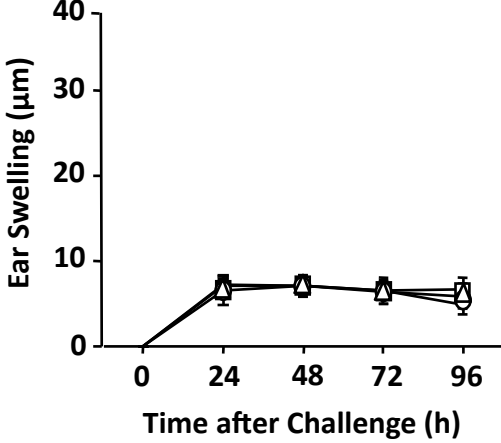


Fig. 6

In HDC-KO C57BL/6
Sensitization

- Ni 1 mM
- Ni + IL-1 β 4 μ g/ml
- △ Ni + IL-1 β + Histamine 180 mM

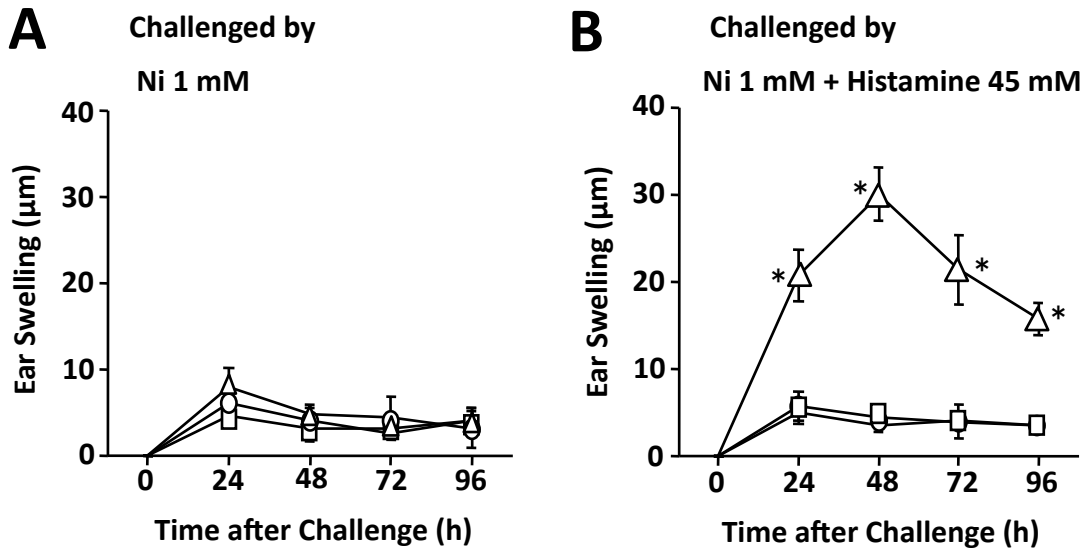
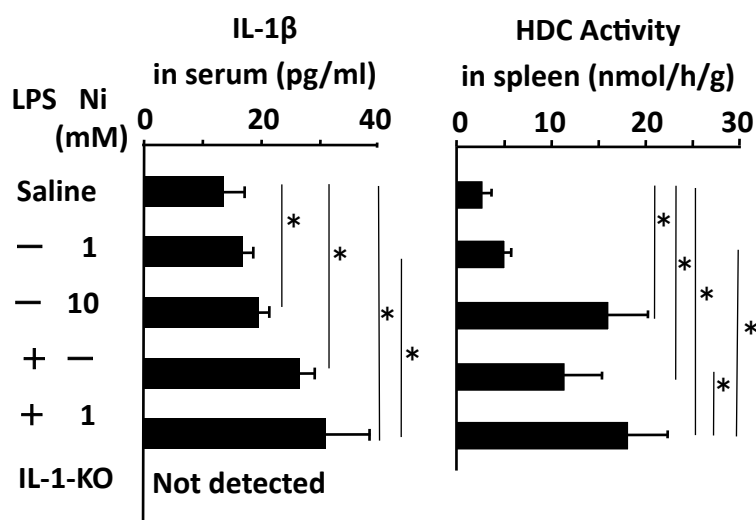


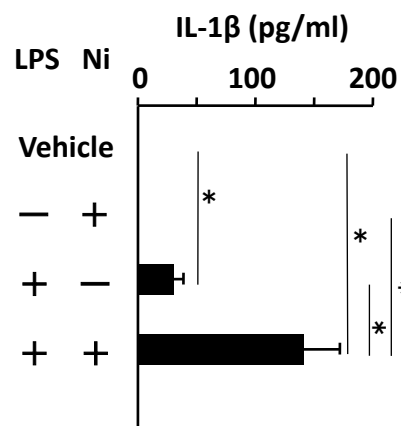
Fig. 7

In WT C57BL/6 mice

A Ni ± LPS 1 mg/ml (i.p.) → 4 h Blood, Spleen



C Ni 0.5 mM → 24 h Supernatant ± LPS 0.1 μg/ml (in vitro)



B Ni ± LPS 1 mg/ml (i.d.) → 24 h Ear

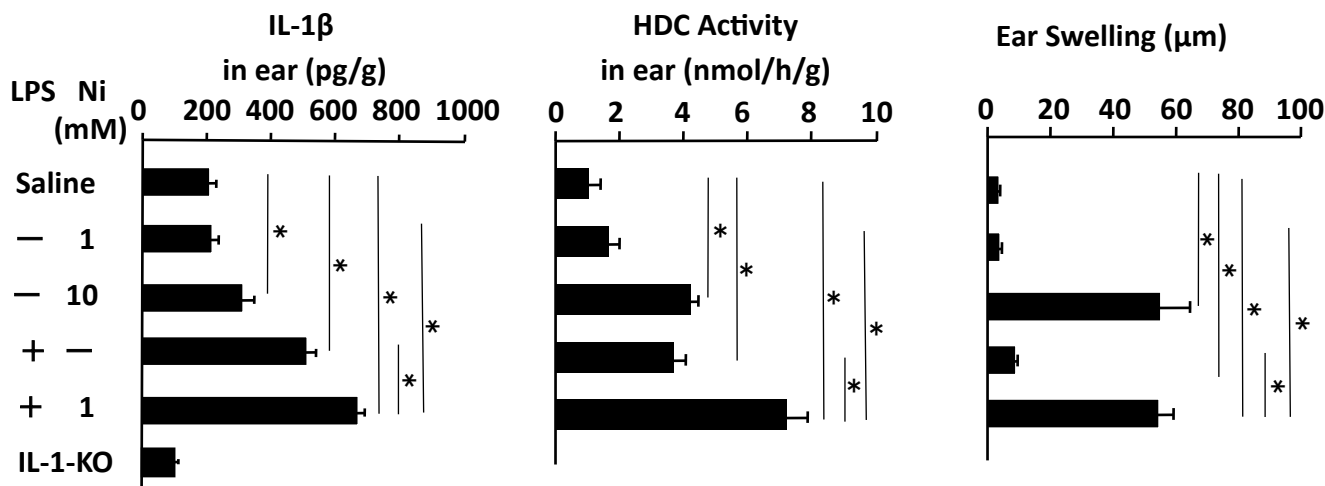


Fig. 8

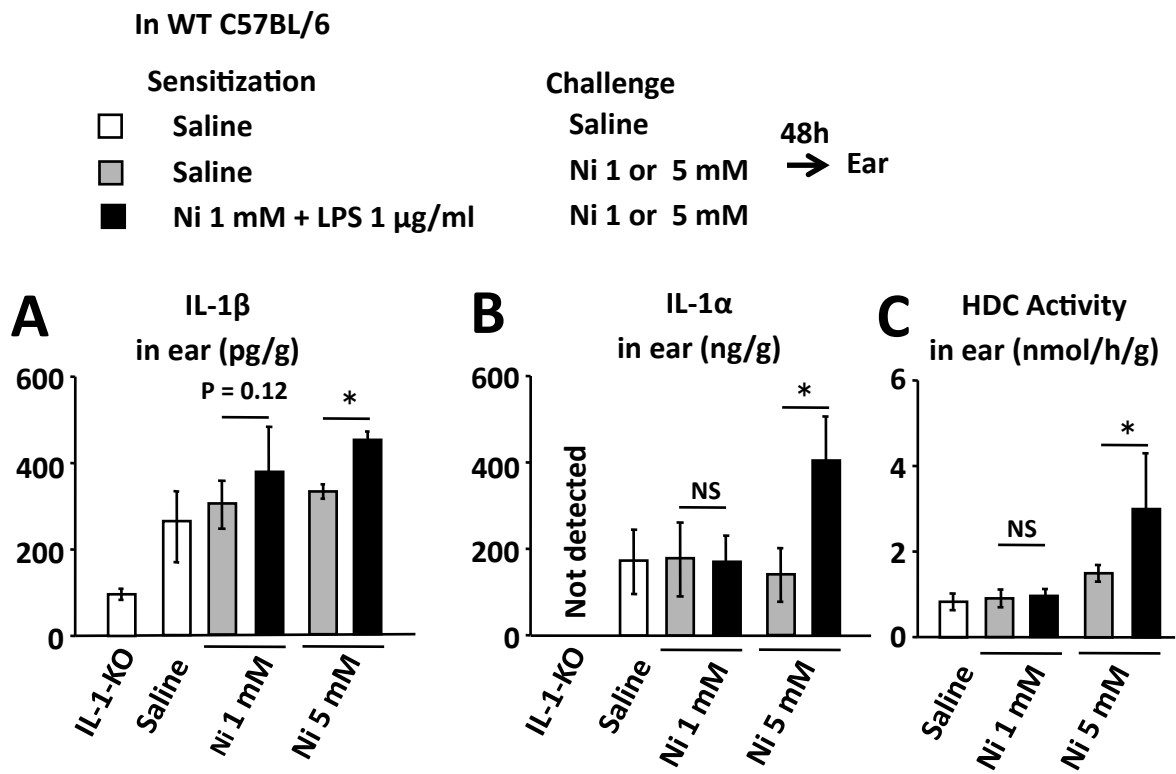


Fig. 9

