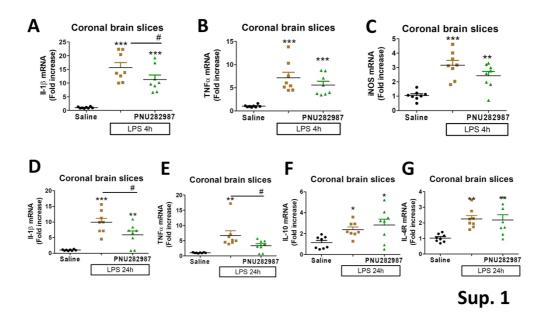
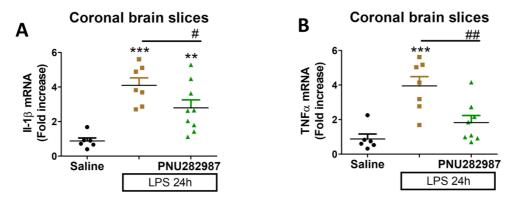
### **Supplementrary Material**



Supplementary Figure S1.  $\alpha$ 7 nAChR activation prevents pro-inflammatory cytokine expression in coronal brain slices. mRNA levels in coronal brain slices of IL-1 $\beta$  (A), TNF $\alpha$  (B) and iNOS (C) 4 h after injection of LPS  $\pm$  PNU282987 and IL-1 $\beta$  (D), TNF $\alpha$  (E), IL-10 (F), IL-4R (G) 24 h after treatments. Data represent mean  $\pm$  S.E.M. of 8 animals/group. Comparisons were made using one-way ANOVA. \*P<0.05, \*\*P<0.01, \*\*\*P<0.001 vs saline; \*P<0.05 vs LPS.



Sup. 2

Supplementary Figure S2. Central  $\alpha$ 7 nAChR activation 2 h post-LPS prevents proinflammatory cytokine expression in coronal brain slices. mRNA levels in coronal brain slices of IL-1 $\beta$  (A) and TNF $\alpha$  (B) were measured 24 h after injection of LPS. Data represent mean  $\pm$  S.E.M. of 6-8 animals/group. Comparisons were made using one-way ANOVA. \*\*P<0.01, \*\*\*P<0.001 vs saline; \*P<0.05, \*\*P<0.01 vs LPS.

**Supplementary Table S1. Animal body weight.** Tables represent mean body weight of animals in the different protocols(A) co-administration of PNU282987-LPS i.p. (8 animals/group), (B) i.c.v. injection of PNU282987 to adult animals (6-8 animals/group), (C) 2 h post-LPS administration of PNU282987 i.p. (4-6 animals/group), (D) i.c.v. injection of PNU282987 to aged animals (4 animals/group). Data correspond to the mean ± S.E.M.

# Animal body weight: i.p. co-administration of LPS and PNU282987

	T=0 h	T=4 h	T=8 h	T=24 h
Saline	23.7 ± 0.6	23.7 ± 0.5	24.1 ± 0.5	23.2 ± 0.6
LPS	22.9 ± 0.6	22.1 ± 0.6	21.8 ± 0.6	20.8 ± 0.6
LPS + PNU	24.4 ± 0.5	23.7 ± 0.5	23.7 ±0.6	22.9 ± 0.6

# **B** Animal body weight: i.c.v. administration of PNU282987 2 h post-LPS (adult animals)

	T=0 h	T=4 h	T=8 h	T=24 h
Saline	22.7 ± 0.4	22.9 ± 0.4	23.7 ± 0.5	22.4 ± 0.5
LPS	23.1 ± 0.4	22.5 ± 0.4	22.5 ± 0.3	21.6 ± 0.2
LPS + PNU	22.9 ± 0.3	22.5 ± 0.3	22.6 ± 0.3	21.7 ± 0.3

## C Animal body weight: i.p. administration PNU282987 2 h post-LPS

	T=0 h	T=4 h	T=8 h	T=24 h
Saline	23.6 ± 0.6	23.8 ± 0.5	24.1 ± 0.5	23.3 ± 0.5
LPS	24.0 ± 0.5	$23.6 \pm 0.6$	23.2 ± 0.6	22.1 ± 0.6
LPS + PNU	23.2 ± 0.2	22.8 ± 0.2	22.6 ± 0.4	21.6 ± 0.3

#### Animal body weight: i.c.v. PNU282987 administration 2 h pots-LPS (aged animals)

	T=0 h	T=4 h	T=8 h	T=24 h
Saline	28.9 ± 1.6	х	х	28.3 ± 1.6
LPS	28.9 ± 1.34	х	х	26.7 ± 0.9
LPS + PNU	29.0 ± 1.2	x	x	26.4 ± 1.1