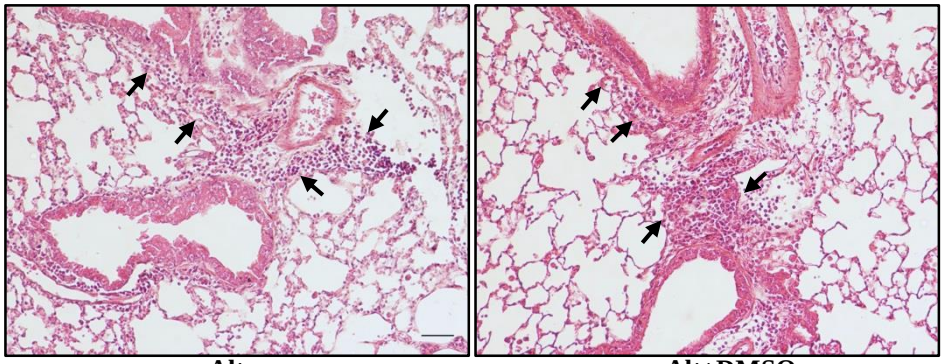
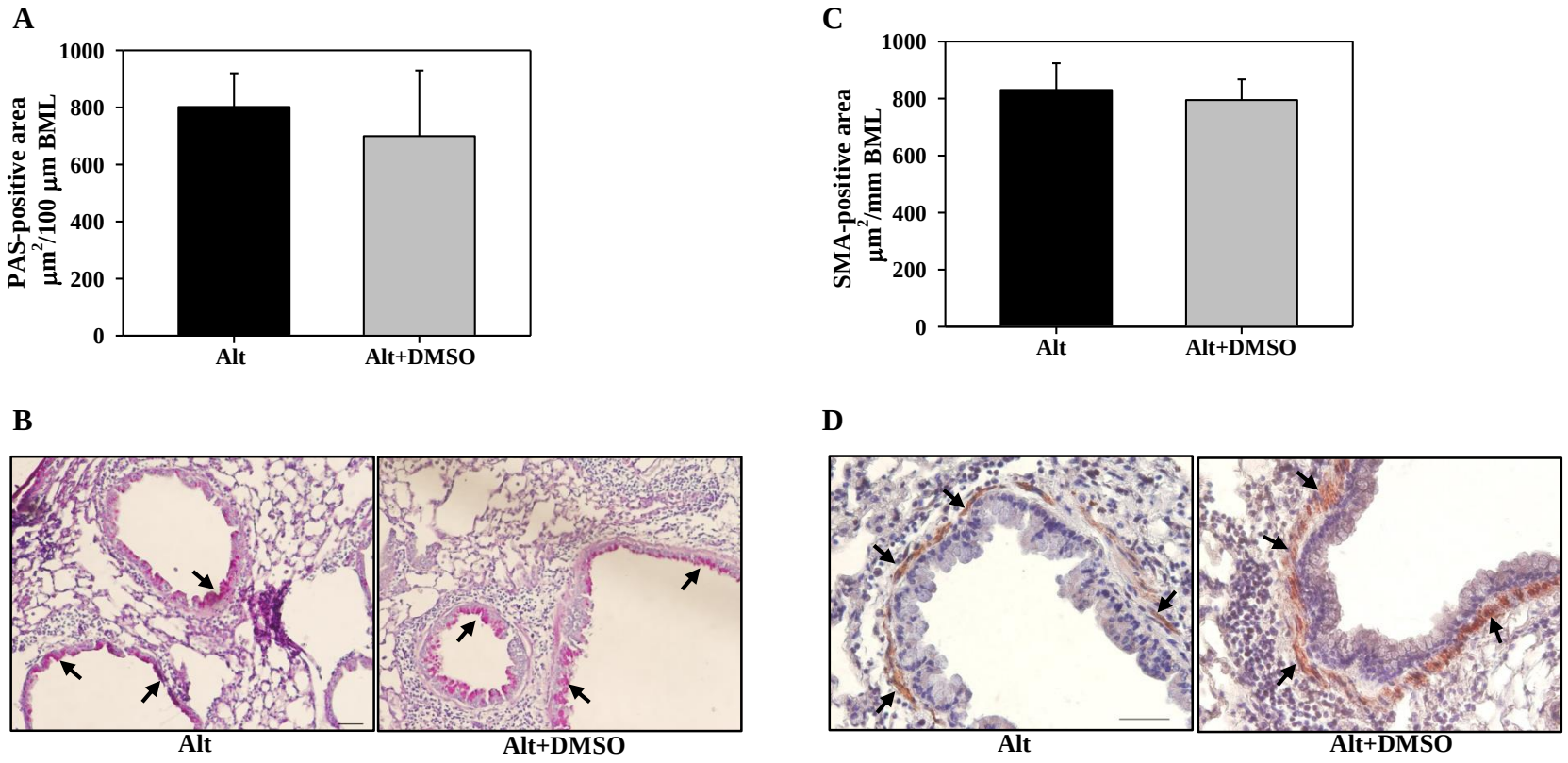
Supplementary Figures



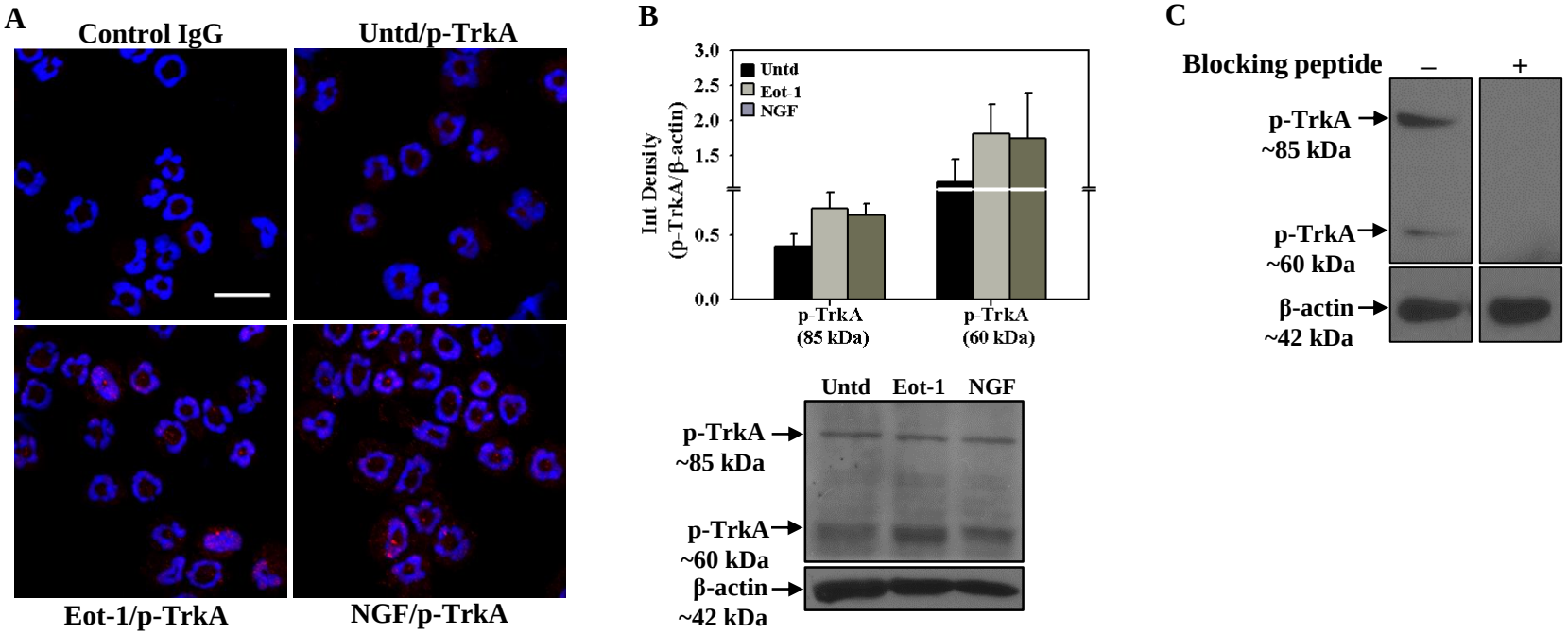
Supplemental Fig. 1 Airway cellular infiltration in *A. alternata*-challenged TrkA-KI mice is not altered by vehicle (DMSO/PBS). TrkA-KI mice were challenged with *A. alternata* as described in the main manuscript. One group of the *A. alternata*-challenged mice were administered DMSO/PBS (vehicle for 1-NM-PP1) on days 0, 3, 4, 5 and 6. Lung sections from both groups were stained with H & E to evaluate allergen-induced cellular infiltration. Data representative of four mice/group is shown. Scale bar, 50 µm. Arrows indicate inflammatory cells.

Supplemental Fig. 1



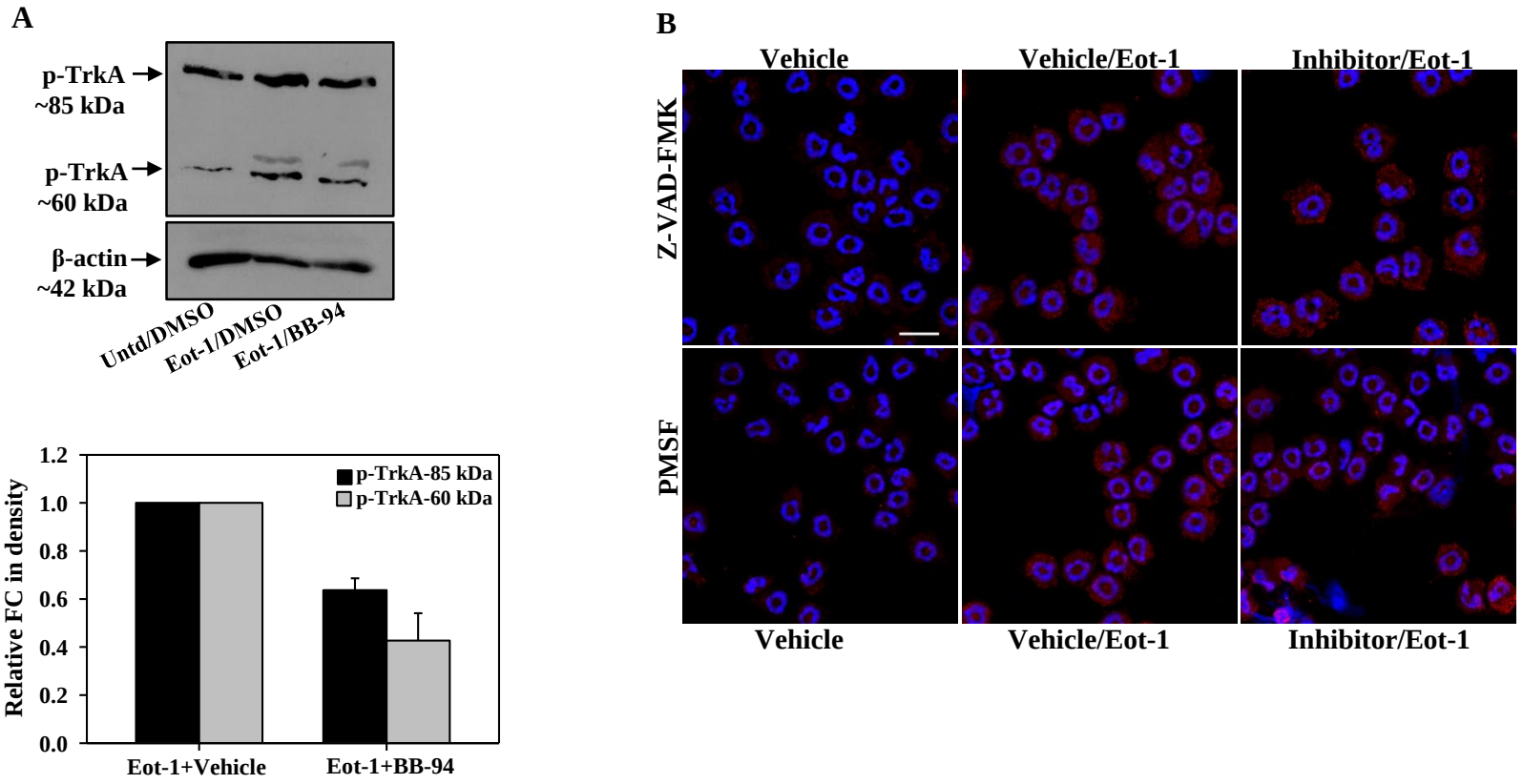
Supplemental Fig. 2 Airway mucus secretion and smooth muscle thickness in *A. alternata*-challenged TrkA-KI mice are not altered by vehicle. TrkA-KI mice challenged with *A. alternata* and administered DMSO/PBS (vehicle for 1-NM-PP1) on days 0, 3, 4, 5 and 6, or left untreated were examined for (A and B) airway mucus secretion and (C and D) smooth muscle hyperplasia as described in the main manuscript. Quantitative data (4-6 mice/group) and representative images are shown. Scale bar, 50 µm. Arrows highlight positive staining.

Supplemental Fig. 2



Supplemental Fig. 3 Activation of TrkA by eotaxin in TrkA-KI eosinophils and specificity of p-TrkA mAb. (A) p-TrkA expression in eotaxin-1 (Eot-1)- or NGF-treated WT eosinophils by immunofluorescence staining with p-TrkA mAb. Scale bar, 20 μm. Untd; Untreated. (B) TrkA-KI eosinophils were treated with eotaxin-1 or NGF and analyzed by Western blot with p-TrkA mAb as described in the main manuscript. Densitometry data and a representative image (below graph) are shown. (C) Eotaxin-1-treated TrkA-KI eosinophils were analyzed by Western blots with p-TrkA mAb in the absence and presence of a blocking peptide specific for the antibody. Membranes containing equal amounts of the sample in duplicate lanes were cut. One lane was incubated with p-TrkA mAb without blocking peptide while the other lane was incubated with p-TrkA mAb after pre-incubation with the blocking peptide. Expression of β-actin is shown as the internal control. In B (upper panel), combined data (Mean ± SEM) and in A and C, representative data of three independent experiments with eosinophils from different mice are shown.

Supplemental Fig. 3



Supplemental Fig. 4 Effect of protease inhibitors on TrkA activation by eotaxin-1. (A) Effect of BB-94 (pan MMP inhibitor) on p-TrkA activation in eotaxin-1-treated WT eosinophils by Western blot analysis with p-TrkA mAb. Untd; Untreated. Densitometric data is shown below blot. (B) p-TrkA expression in eotaxin-1 (Eot-1)-exposed TrkA KI eosinophils pre-treated with a pan caspase inhibitor (Z-VAD-FMK), serine protease inhibitor (PMSF) or respective vehicle control (DMSO for Z-VAD-FMK, isopropyl alcohol for PMSF) by immunofluorescence staining with p-TrKA mAb. Scale bar, 20 μm. In A, representative data and in B (lower panel), combined data (Mean ± SEM), of three independent experiments with eosinophils from three different mice is shown.

Supplemental Fig. 4