

## Supplementary Materials

**Figure S1. Increased TNSS, total cell count and eosinophils in subjects with moderate-severe allergic rhinitis.** (A) TNSS. (B) Total cell count in nose by nasal brushing. (C) Representative images of immunofluorescence staining showing eosinophils (ECP<sup>+</sup> cells, green) in nose are increased in the moderate-severe patients. TNSS, total nasal symptom score. HC, healthy controls. M-AR, mild allergic rhinitis. MS-AR, moderate-severe allergic rhinitis. ECP, eosinophil cationic protein. DAPI, 4',6-diamidino-2-phenylindole (blue).

**Figure S2. Percentages of CD101-, CD274-, and both CD101- and CD274-expressing eosinophils in peripheral blood (A) and nose (B).** HC, healthy controls. M-AR, mild allergic rhinitis. MS-AR, moderate-severe allergic rhinitis.

**Figure S3. Relationship between TNSS and eosinophil subsets in patients with allergic rhinitis.** Correlation of TNSS with CD44<sup>+</sup>, CD69<sup>+</sup> and CD101<sup>+</sup>CD274<sup>+</sup> eosinophil count in blood (A) and nose (B). TNSS, total nasal symptom score.

**Figure S4. Relationship between eosinophil granule proteins and eosinophil subsets in patients with allergic rhinitis.** Correlation of serum ECP (A) and EPX (B) concentrations with TNSS, total, CD44<sup>+</sup>, CD69<sup>+</sup> and CD101<sup>+</sup>CD274<sup>+</sup> eosinophil count in blood. TNSS, total nasal symptom score. ECP, eosinophil cationic protein. EPX, eosinophil peroxidase.

**Figure S5. Purity of eosinophils isolated from peripheral blood.** Representative flow-cytometry plots showing the purity of eosinophils were greater than 96%.

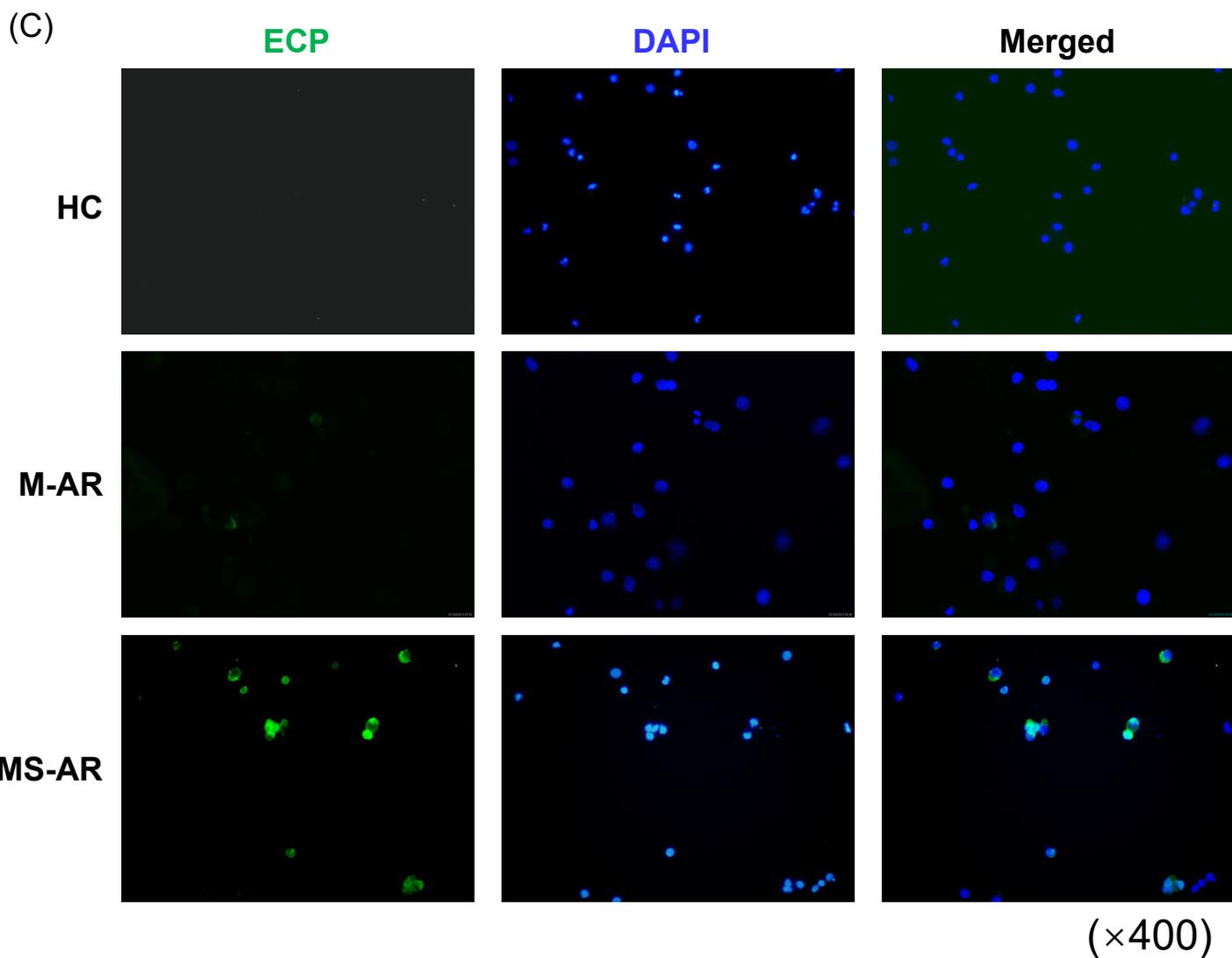
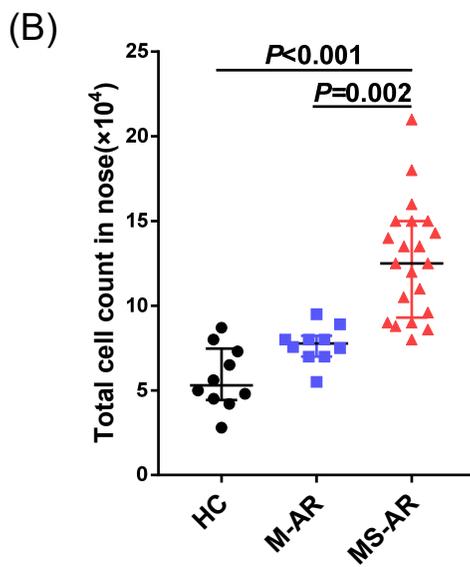
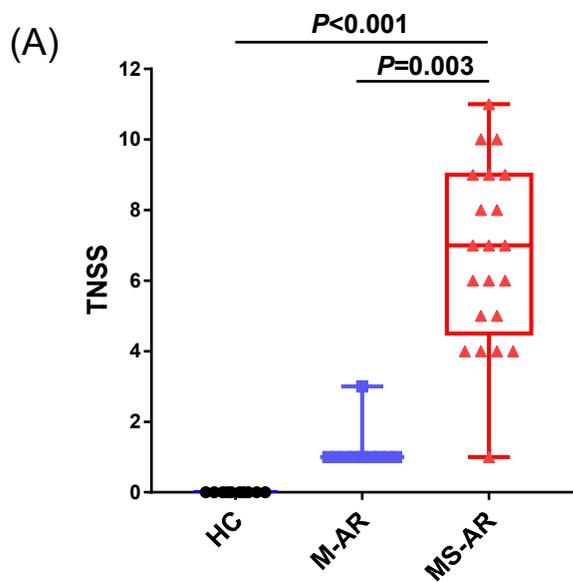


Figure S1

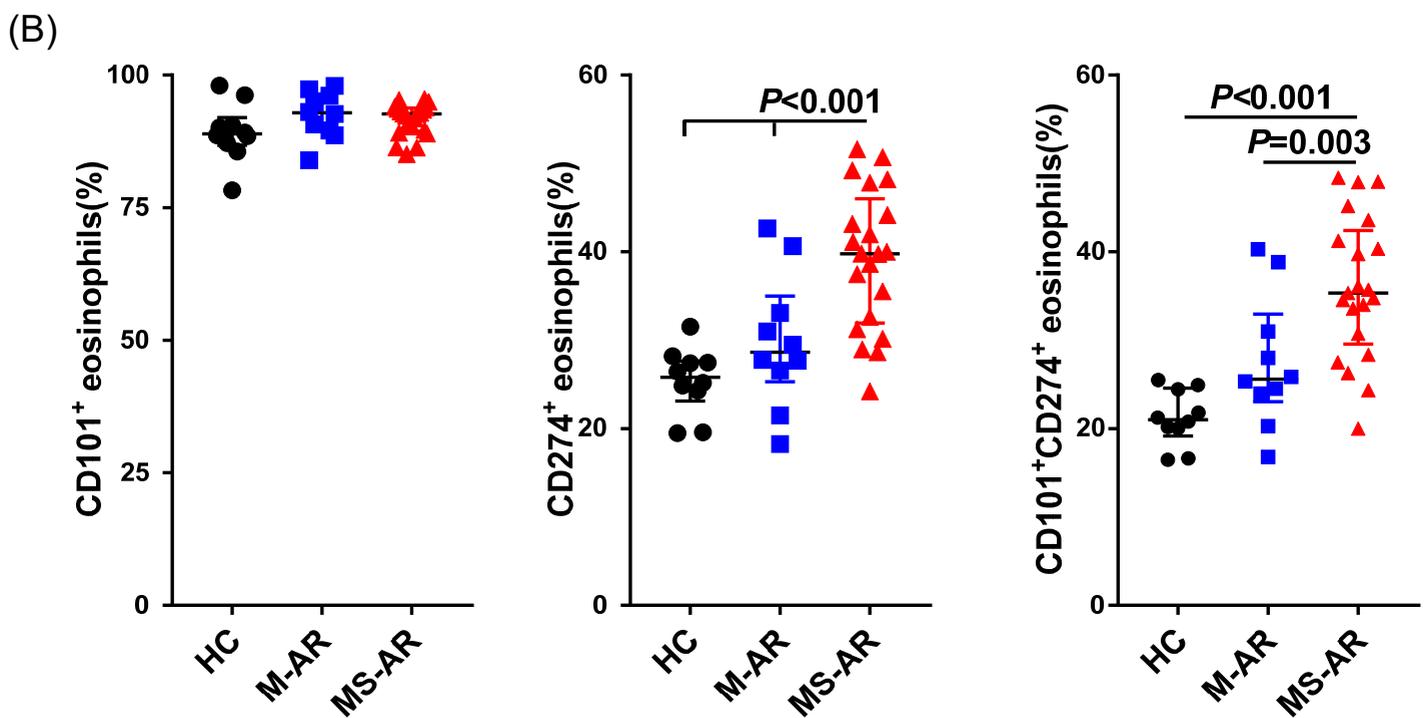
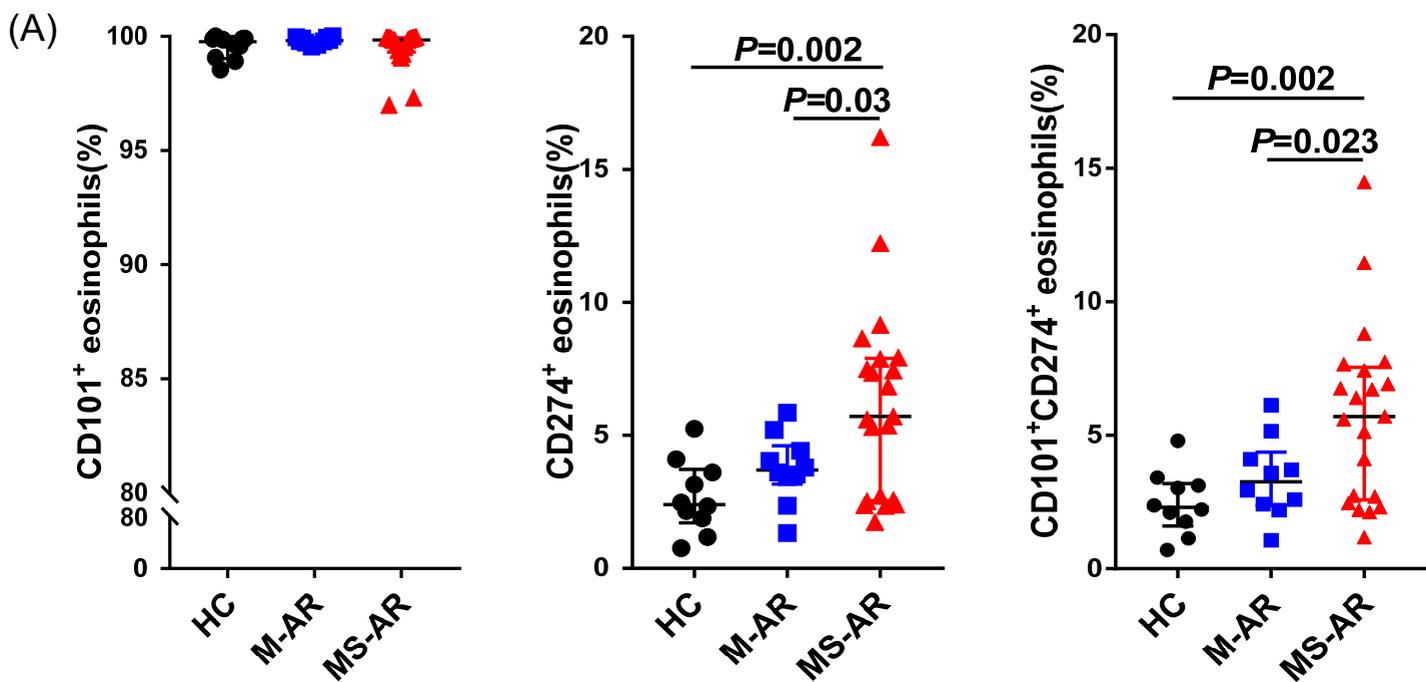
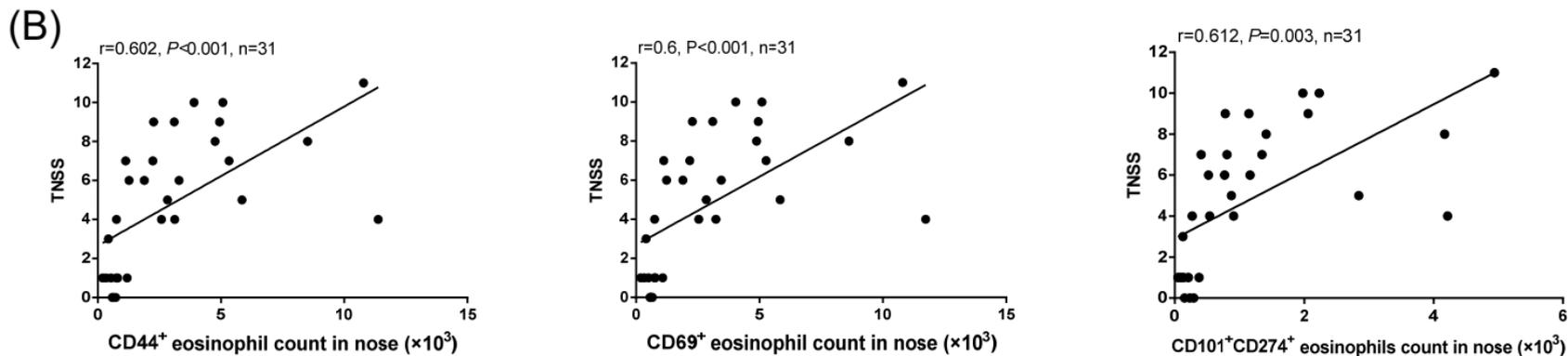
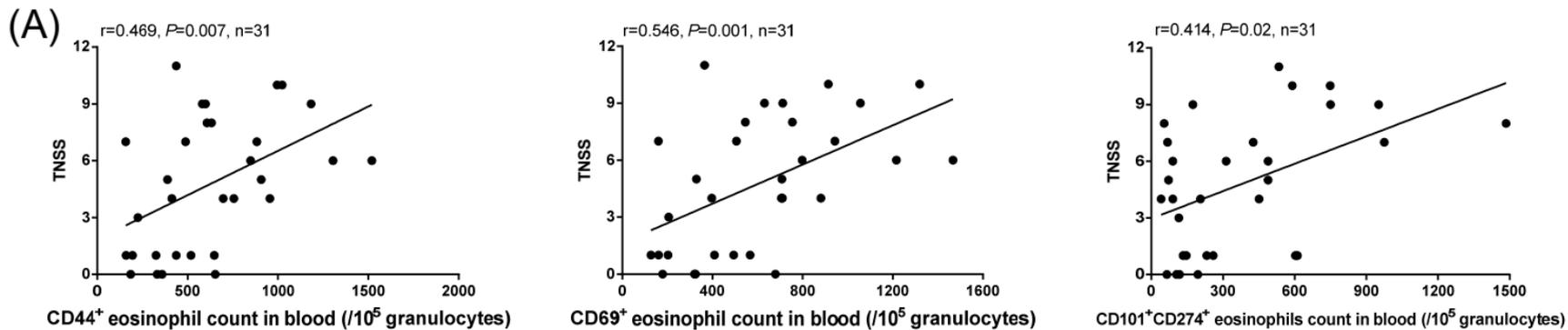
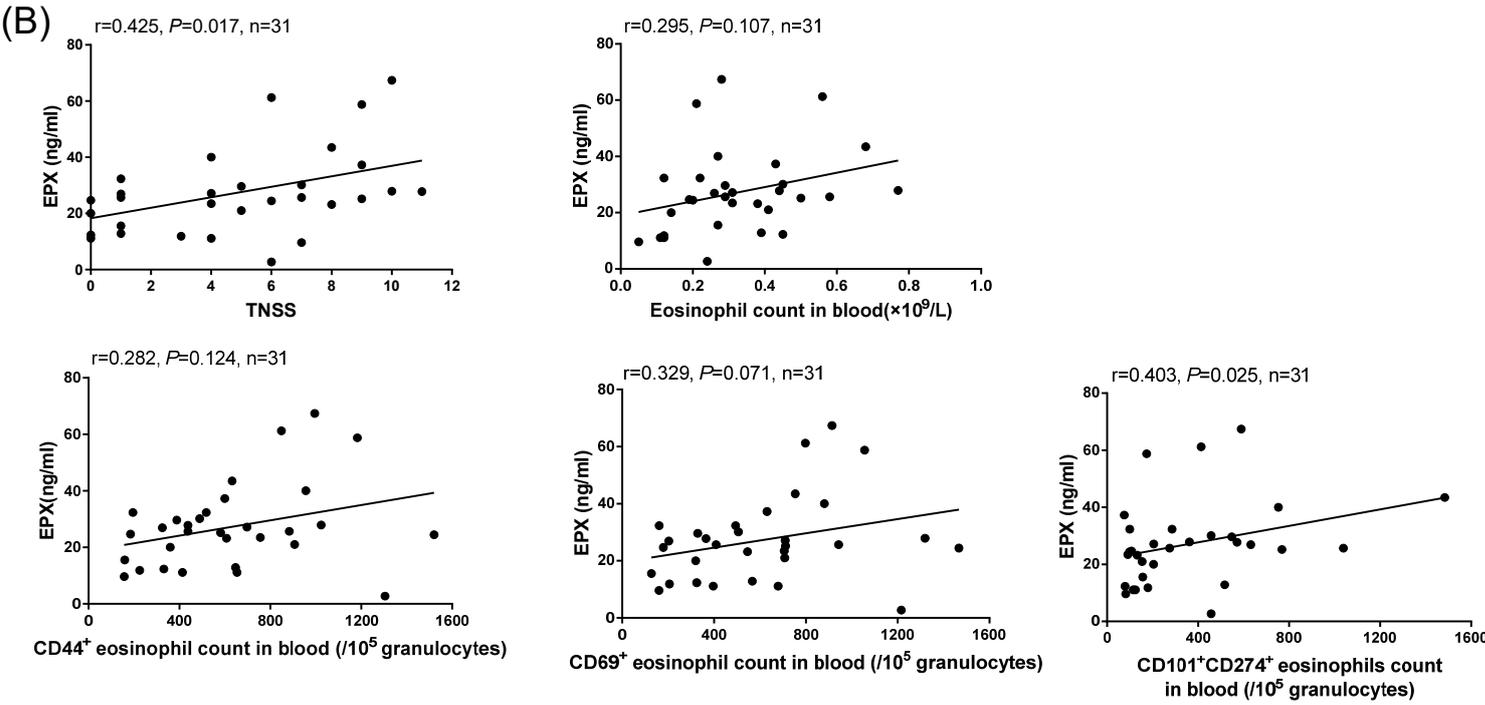
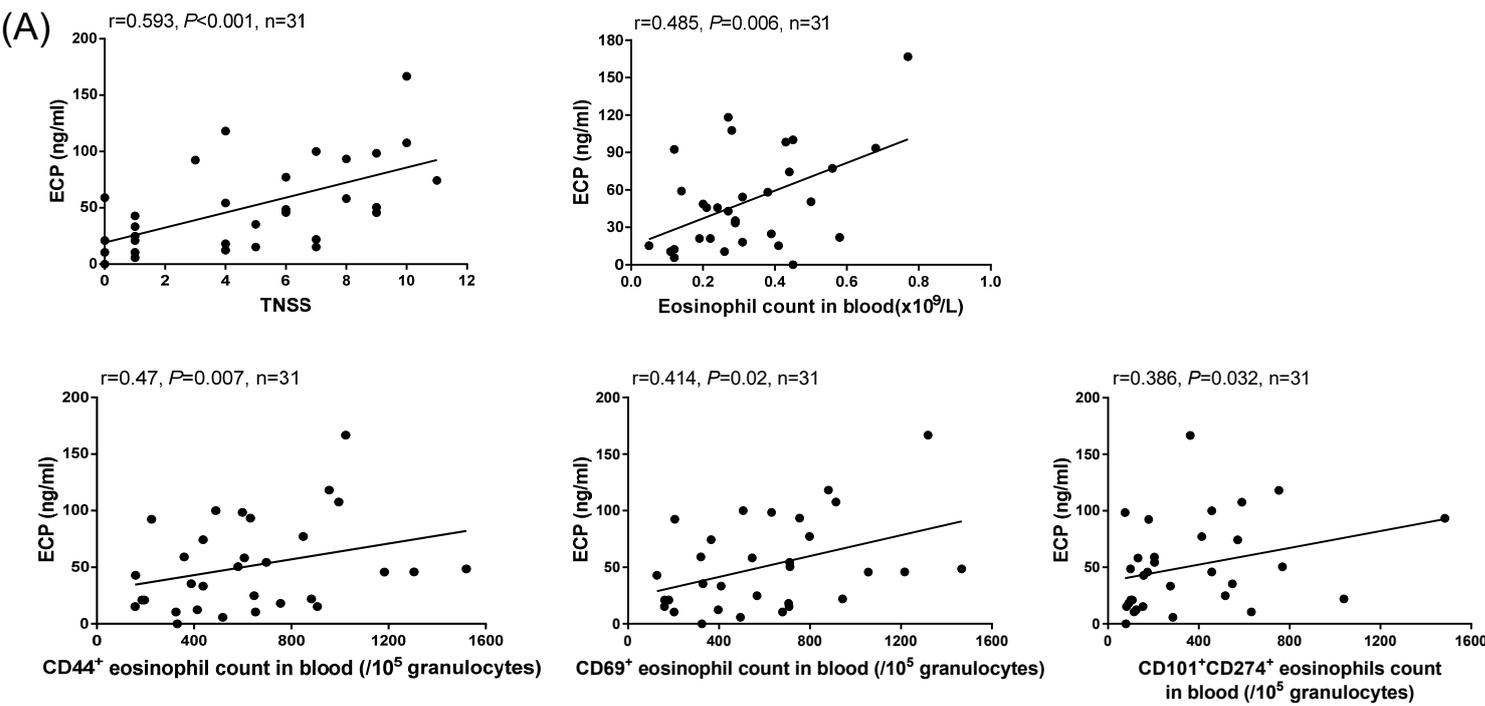


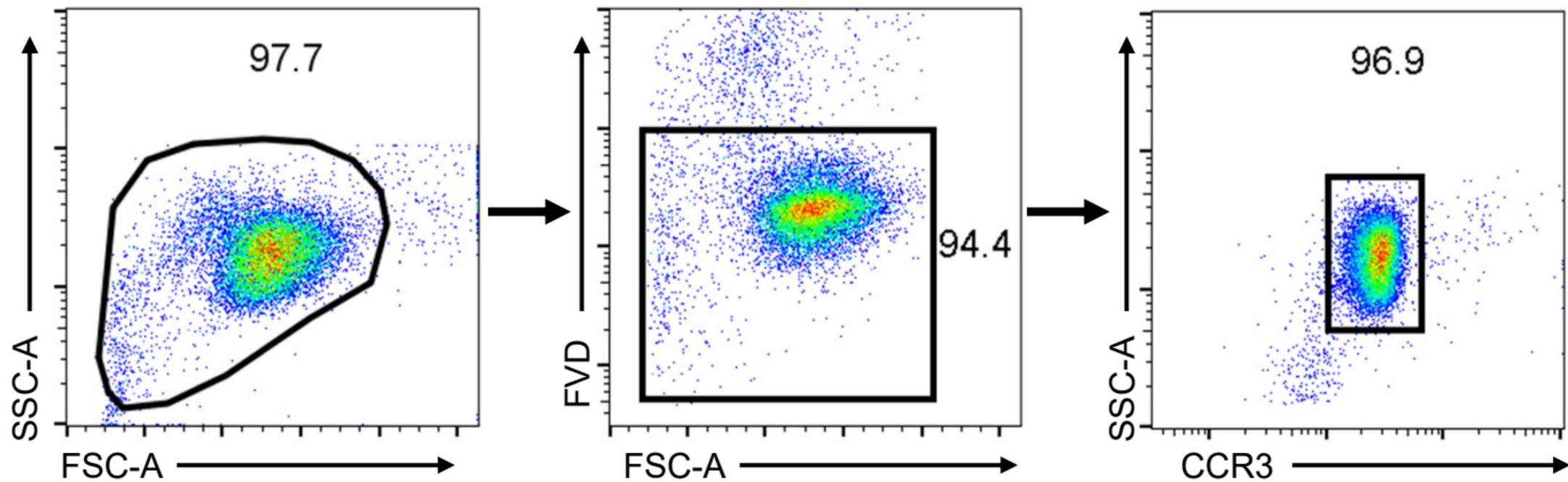
Figure S2



**Figure S3**



**Figure S4**



**Figure S5**