Supplemental materiel and method

***In vitro* stimulation and intracellular cytokine staining**

Lymphocytes from BAL , parenchyma lung or cheek tumor were harvested at D21. Cells were stimulated or not with 10 ug/ml R9F peptide or TC1 tumor cells for 5h in the presence of Golgistop® (Monensin) and Golgiplug® (Brefeldin A), and anti-mouse CD107a/CD107b (clone 14DB and M3/84) (all from BS Biosciences). Then cells were stained with antibodies to surface markers as described above, fixed and permeabilized using Fixation/permeabilization kit (Ebiosciences/Life Technologies) according to manufactor's protocol. And stained for intracellular with antibodies against IFNγ BV650 (XMG1.2, Biolegend) and GranzymeB AF700 (clone GB11, Biolegend).

Immunofluorescence microscopy

C57BL/6 mice were injected i.n with PolyIC (10ug). 24h later, 250ug Brefeldin A (Sigma, B6542) were injected i.v 4h before sacrifice. Intracardiac perfusion with 20ml PBS-EDTA 2mM followed with 10 ml PBS-OCT 2% were performed on anesthezied mice. Lung, mucosal lining cheek were harvested, embedded in Tissue Freezing Medium (Microm Microtech, TFM-5) frozen and stored at -80°C. Blocks were sectioned at 6um with a cryostat, air dried and fixed for 3 min with 100% acetone. Before incubation with antibodies, the slides were pretreated with avidin/biotin blocker (Vector Laboratories SP-2001) for 10 minutes each, and slides were blocked again with 100uL with PBS-BSA 5%+ 0,25% blocking reagent (Perkin Elmer, FP1020) for 30 minutes. Slides were stained with a goat IgG anti-human CXCL16 biotin (2ug/ml, R&D BAF503) or negative control Goat IgG (2ug/mL, R&D BAF108), wash, then stained with Streptavidine -Cy3 (4,5ug/mL, JIR 016-160-084) and rat IgG2a anti EpCAM AF594 (2,5ug/mL, clone G8.8 Biolegend 118222) or control rat IgG2a AF594 (2,5ug/mL, Biolegend 400555). Nuclei were highlighted using DAPI solution (1ug/mL, Sigma D9542), slides were mounted with mounting medium (DAKO, S3023). Images were acquired x20 on Vectra® 3 automated microscope (Akoya/Perkin Elmer) and analyzed with inForm® Image Analysis Software.

Adoptive transfer of T cells

Splenic CD4 and CD8 T cells from C57Bl/6 CD45.1 and *Cxcr6*$^{gfp/gfp}$ mice were isolated by magnetic sorting (Miltenyi Biotec). Then stimulated in vitro with coated anti-CD3ε (clone 145-2C11, Ebioscience/ Life Technologies) with complete RPMI 1640 medium and mouse IL-2 (4ng/ml, PeproTech) for 5 days. T cells were moved into uncoated wells and cultured in complete RPMI 1640 medium and 2ng/ml IL-2 for an additional 2 days. Activated T cells were

washed and cell viability was determined. Equal number of T cells were mixed and injected into CD3 KO recipient mice. Recipient mice were immunized with STxB-E7 by IN route at day 1 and 21 after adoptif transfert, and sacrified at day 28. H-2D^{b} E7$_{49\text{-}57}$ tetramer and T_{RM} were analyzed in BAL and lung parenchyma.