Figure S1. Virus replication efficiency of rNDV-PTEN treatment using CCF-STTG1 and U87-MG cells. CCF-STTG1 cells and U87-MG cells were infected with rNDV-PTEN (1 MOI) for 0 h (no treatment) or 36 h. PTEN expression was measured using immunoblotting analysis in CCF-STTG1 and U87-MG cells. GAPDH was used as an internal control. *P<0.05 vs. 0 h. NDV, Newcastle disease virus; rNDV, recombinant NDV; PTEN, phosphatase and tensin homolog; HN, hemagglutinin-neuraminidase protein; MOI, multiplicity of infection.

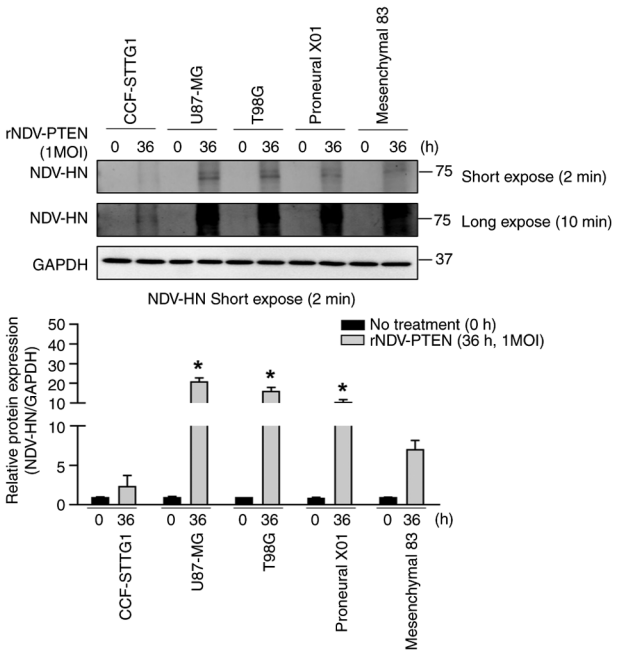

Figure S2. rNDV-PTEN and rNDV induce DNA fragmentation in U87-MG cells. U87-MG cells were infected rNDV or rNDV-PTEN (multiplicity of infection, 1) for 36 h. DNA fragmentation [TUNEL (FITC) positive] in U87-MG cells was measured using TUNEL (FITC) staining after FACS analysis using fluorescence microscopy. Scale bar, 20 μm. rNDV, recombinant Newcastle disease virus; PTEN, phosphatase and tensin homolog; CON, control.

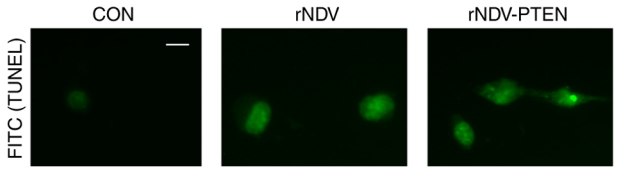

Figure S3. Disruption of tight junction proteins by rNDV-PTEN and rNDV in the orthotopic glioblastoma mouse model. Expression of tight junction related proteins, Occludin, ZO-1 and Claudin-5, were assessed using (A) immunoblotting and (B) reverse transcription-quantitative PCR analysis in the brain tissue in mock mice or in tumor tissue in rNDV-PTEN or rNDV or PBS-treated mice. GAPDH and 18s were used as internal controls. rNDV, recombinant Newcastle disease virus; PTEN, phosphatase and tensin homolog; ZO-1, zonula occludens protein 1.