The basement membrane is a sheet-like extracellular matrix that is formed beneath epithelial cell sheets. Interactions between cells and basement membranes through cell surface receptors regulate epithelial cell behaviors such as cell adhesion, survival, polarization, migration, or differentiation. Conversely the formation, degradation, or compositions of basement membranes are tightly regulated by neighboring cells. During embryonic development and tissue regeneration, dynamic remodeling of basement membranes takes place, as is the case with that of epithelial cell sheets. Though several studies using hydra, worm, and insects demonstrated that the basement membranes are dynamically remodelled during development, such dynamics of basement membranes has been hardly studied in mammalian tissues. Last year we reported EGFP-fused human nidogen-1 (nid1-EGFP) as a novel probe for live-imaging of basement membranes of mammalian cells. Nid1-EGFP recombinant proteins added in culture media efficiently accumulated to basement membrane region of embryoid bodies derived from mouse embryonic stem cells. However, the expression levels of nid1-EGFP introduced in mammalian cells were too low to observe fluorescence. Here we generated another nidogen-1 recombinants fused with a red fluorescent protein mCherry (nid1-mCherry). Nid1-mCherry was expressed and secreted in 293F cells more efficiently than nid1-EGFP, and showed specific binding activities to other basement membrane proteins, as nid1-EGFP did. Combination of these different colored fluorescent probes will prove to be useful in detailed analysis of basement membrane turnover.