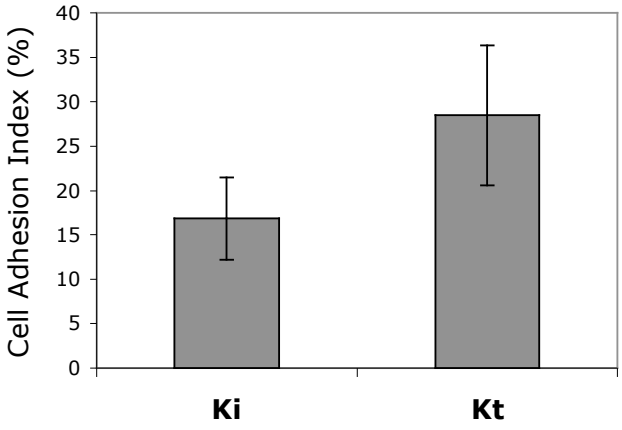
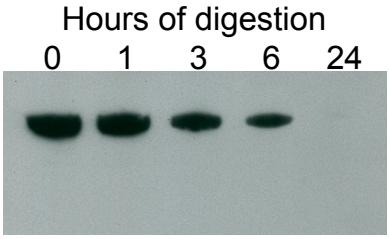
Supporting Information

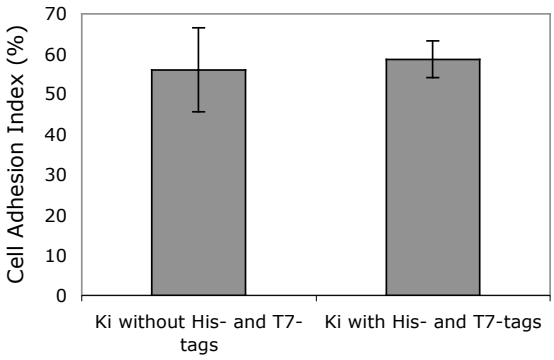
Supporting figures include 1. Cell resistance to detachment forces on engineered proteins adsorbed to glass substrates, 2. Western analysis confirming complete cleavage of heptahistidine- and T7-tags, and 3. Cell resistance to detachment forces on engineered proteins with heptahistidine- and T7-tags removed.



Supporting Information Figure 1. HUVEC resistance to a 26 pN normal detachment force after 30 minutes of incubation on glass adsorbed with **Ki** or **Kt** protein. Three independent experiments with six replicates were performed. Error bars represent one standard deviation.



Supporting Information Figure 2. Western analysis confirming complete cleavage of heptahistidine- and T7-tags from **Ki.** To remove the T7- and heptahistidine-tags, the cleavage reaction was carried out at room temperature, 50mM Tris, pH 8, 1 mg/ml protein, and 15 μg/ml enterokinase (Roche) for 24 h. EKapture agarose (Novagen) was used to remove the enzyme. The peptide tag was removed via dialysis in pure water prior to lyophilization. No evidence of the T7-tag could be visualized on an over-exposed Western blot using a T7-antibody. The yield for this entire sequence of steps including digestion, purification, dialysis, and lyophilization was approximately 60%.



Supporting Information Figure 3. HUVEC resistance to a 26 pN normal detachment force after 30 minutes of incubation on tissue-culture polystyrene adsorbed with **Ki** protein prior to and after heptahistidine- and T7-tag removal. Three independent experiments in triplicate were performed. Error bars represent one standard deviation.