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Mapping the interaction sites of the viral encoded chemokine receptor US28 and the sorting protein GASP-I

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US28 is a chemokine receptor encoded by the human cytomegalovirus (hCMV). It has been shown to be crucial for viral propagation. For instance, it is present on the viral envelope where it may serve as a cell-to-cell attachment factor through binding to the membrane-bound chemokine fractalkine. Most notably, US28 is a constitutively signaling and endocytosing receptor, thus playing a key role in the early reprogramming of the host cell. It has further been suggested that during viral propagation, US28 is integrated into the viral envelope in the lysosomes of host cells. A candidate protein for sorting many G protein-coupled receptors to lysosomes is the G protein-coupled receptor-associated protein-1 (GASP-1). Here we show that GASP-1 interacts with US28 in vitro and set out to map the interaction sites of US28 and GASP-1 by using in vitro translation binding assays.