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Meeting abstract

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The far carboxy-terminus of the viral encoded chemokine receptor US28 binds to the sorting protein GASP-I in vitro

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US28 is a chemokine receptor encoded by the human cytomegalovirus (hCMV) and seems to be crucial for viral propagation. It is a constitutively active receptor. For instance it was shown that US28 signals via G_a/PLC and activates the transcription factors nuclear factor kB (NFκB), cyclic AMP response element binding protein (CREB) and nuclear factor of activated T-cells (NFAT). Hence, the receptor may play a key role in the early reprogramming of the host cells. Interestingly, US28 is constitutively phosphorylated and endocytosed. It has also 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 and the C-terminal part of GASP-1 (cGASP-1) interact with the far C-terminal end of US28 in vitro. We assessed this by using in vitro translated, [35S] methionineradiolabelled GASP-1 and cGASP-1 and several different US28 C-terminal mutations and truncations in a GST pull-down assay.