

**Ganglioside GM1-binding peptides as adjuvants of antigens inoculated by the intranasal route.**

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Forty-five GM1-binding peptides were identified using phage-displayed peptides libraries of random peptides. Most have a motif containing a hydrophobic amino acid followed by a serine (S). Based on a GM1-binding assays, two of these GM1-binding peptides (named 15 and 40) were chosen to investigate its immunostimulatory properties when chemically coupled to antigens. Mice intranasally (i.n.) vaccinated with some of these complexes developed a better local and systemic antibody response than mice i.n. vaccinated with the respective uncoupled antigens. The efficiency of the complex GM(1)-binding peptide-antigen strongly depends on the composition and structure of both of the components of the complex.