

Abstract:

Dendritic cells (DCs) are key antigen presenting cells that have the unique ability to present antigens on MHC molecules, which can lead to either priming or suppression of T cell mediated immune responses. C-type lectin receptors expressed by DCs are involved in antigen uptake and presentation through recognition of carbohydrate structures on antigens. Here we have explored the feasibility of modification of liposomes with glycans for targeting purposes to boost immune responses. The potential of targeting glycoliposomal constructs to the C-type lectin DC-SIGN on DCs was studied using either PEGylated or non-PEGylated liposomes. Our data demonstrate that formulation of the glycoliposomes as PEGylated negatively affected their potential to target to DCs.