

# The Uniqueness of Albumin as a Carrier in Nanodrug Delivery

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**Abstract:** *Albumin has emerged as a promising carrier in nanomedicine due to its special qualities. It is the most widely used plasma protein and has excellent non-immunogenicity, biocompatibility, biodegradability, and clinical safety. Its structural flexibility allows it to exhibit broad drug-binding capacity enhancing pharmacokinetic profiles or shielding them from rapid metabolism and clearance. Additionally, because albumin naturally interacts with receptors that are often overexpressed in diseased tissues, it actively targets pathological sites without the need for additional ligands. Because albumin exhibits a long serum alongside each semi fraction involving about 19 days this can be delivered precisely and circulated for a long time. This article describes the use of both passive and active targeting mechanisms in albumin to deliver hydrophobic drugs via nanodrug*

**Keywords:** Serum albumin, therapeutic delivery, nab-paclitaxel, Solvent-base paclitaxel ligand-mediated targeting, clinical investigations

