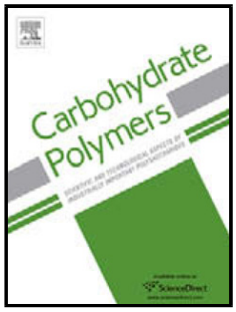

Title: Modified hydroxyethyl starch protects cells from oxidative damage

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Modified hydroxyethyl starch protects cells from oxidative damage.

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Highlights

- New conjugates of sterically hindered phenols (SHP) with hydroxyethyl starch were synthesized.
- In contrast to low molecular SHP, the newly designed conjugates synthesized by the modification of a hydroxyethyl starch with various SHPs enables substantial radical scavenging activity toward a model free radical while keeping the excellent stability in aqueous buffers.
- The conjugates reduced the oxidative damage of cells, which typically take place after an acute hemorrhage. Their high efficiency was confirmed by different *in vitro* and *in vivo* studies.