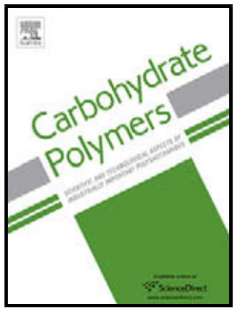

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PII: S0144-8617(16)30474-X
DOI: http://dx.doi.org/doi:10.1016/j.carbpol.2016.04.097
Reference: CARP 11037

To appear in:

Received date: 27-1-2016
Revised date: 18-4-2016
Accepted date: 21-4-2016

Please cite this article as: Zhang, Xiaorui., Qi, Chunhui., Guo, Yan., Zhou, Wenxia., & Zhang, Yongxiang., Toll-like receptor 4-related immunostimulatory polysaccharides: Primary structure, activity relationships, and possible interaction models.*Carbohydrate Polymers* http://dx.doi.org/10.1016/j.carbpol.2016.04.097

Toll-like receptor 4-related immunostimulatory polysaccharides: Primary structure, activity relationships, and possible interaction models

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Highlights

- In this review, we first summarize the monosaccharide type of different origin polysaccharides related to TLR4, including high plant origin polysaccharides, fungus origin polysaccharides, bacterial origin polysaccharides, alga origin polysaccharides, and animal origin polysaccharides.
- Second, we briefly describe the glucosidic bond types of TLR4 related heteroglycans and homoglycans.
- Third, the polysaccharides molecular weight ranges are summarized.
- Fourth, the primary structures and activity relationships of polysaccharides with TLR4/MD-2 are also discussed.
- Last, based on the existing interaction models of LPS with TLR4/MD-2 and linear polysaccharides with proteins, we speculate the possible interaction models of polysaccharide ligands with TLR4/MD-2.