Biotinylated Lipopolysaccharide from *E. Coli* O111:B4

Catalog # 6108

For Research Use Only - Not Human or Therapeutic Use

DESCRIPTION: Biotinylated Lipopolysaccharide (LPS) from *E. Coli* O111:B4

Lipopolysaccharide (LPS), also known as endotoxin, is the major structural component of the outer membrane of gram-negative bacteria. This glycolipid stimulates the host immune system and plays pathological roles in inflammatory diseases such as bacterial sepsis, inflammatory bowel disorders, lung disease, periodontal disease, and asthma (1-4).

APPLICATION: To facilitate studies on host recognition of LPS, a biotinylated LPS and a streptavidin conjugated probe (enzyme or fluorochrome) can be used for identifying LPS ligands in many applications such as: enzyme immunoassay, western blot, flow cytometry, and fluorescence microscopy (5). In addition, LPS ligand interactions can be evaluated in a pull-down assay as demonstrated with HMGB1: a late stage mediator of endotoxin shock (6). Chondrex, Inc. also provides purified bovine HMGB1 for use as a positive control for these LPS binding assays (Cat # 9050).

QUANTITY: 0.1 mg

FORM: Lyophilized powder

SOURCE: *E. Coli* O111:B4

STORAGE: -20°C

STABILITY: 2 years

NOTES: N/A

REFERENCES:

1. R. Karima, S. Matsumoto, H. Higashi, K. Matsushima, The molecular pathogenesis of endotoxic shock and organ failure. *Mol Med Today* **5**, 123-32 (1999).

2. D. Shi, J. Das, G. Das, Inflammatory bowel disease requires the interplay between innate and adaptive immune signals. *Cell Res* **16**, 70-4 (2006).

3. J. Goldberg, G. Pler, Pseudomonas aeruginosa lipopolysaccharides and pathogenesis. *Trends Microbiol* **4**, 490-4 (1996).

4. B. Bainbridge, S. Coats, R. Darveau, Porphyromonas gingivalis lipopolysaccharide displays functionally diverse interactions with the innate host defense system. *Ann Periodontol* **7**, 29-37 (2002).

5. J. Luk, A. Kumar, R. Tsang, D. Staunton, Biotinylated lipopolysaccharide binds to endotoxin receptor in endothelial and monocytic cells. *Anal Biochem* **232**, 217-24 (1995).

6. H. Hreggvidsdottir, T. Ostberg, H. Wähämaa, H. Schierbeck, A. Aveberger, *et al*., The alarmin HMGB1 acts in synergy with endogenous and exogenous danger signals to promote inflammation. *J Leukoc Biol* **86**, 655-62 (2009).

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