ENSG00000109320, gene associated with cellular response to lipopolysaccharide, codes for NFKB which is transcription factor that is activated by various intra- and extra-cellular stimuli such as cytokines. Inappropriate activation of NFKB elicits inflammatory response, associated with immunodeficiency diseases, cardiovascular disease.

ENSG00000111961, genes associated with phenotype positive regulation of lipopolysaccharide-mediated signaling pathway, codes for SASH1 that is signal adapter proteins functions as a scaffold molecule to independently bind TRAF6, TAK1, IκB kinase α, and IκB kinase β. This interaction increases production of proinflammatory cytokines and LPS-induced endothelial migration.