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# TLR Agonist BSG-001

National Cancer Institute

## Source

National Cancer Institute. *TLR Agonist BSG-001*. NCI Thesaurus. Code C158747.

A toll-like receptor (TLR) agonist with potential immunomodulating and antineoplastic activities. Upon inhalation, TLR agonist BSG-001 activates one or more not yet disclosed TLRs, which may result in macrophage and plasmacytoid dendritic cell (pDC) stimulation, secretion of interferon alpha (IFN $\alpha$ ), production of proinflammatory cytokines, upregulation of co-stimulatory molecules, enhanced T- and B-cell stimulatory responses, T-cell proliferation and a T-helper 1 (Th1) immune response. TLRs are transmembrane receptors that recognize structurally conserved microbial molecules such as bacterial cell-surface lipopolysaccharides (LPS), lipoproteins, lipopeptides, lipoarabinomannan and flagellin, among others. Immune responses stimulated by TLR activation may result in immune-mediated tumor cell killing.