ODN TTAGGG (A151) is a synthetic oligonucleotide (ODN) containing 4 repeats of the immunosuppressive TTAGGG motif. This product is a TLR9 antagonist that inhibits TLR9 activation by CpG-containing ODNs. This ODN was tested with InvivoGen’s HEK-Blue™ hTLR9 reporter cells which stably express human TLR9 and a SEAP (secreted embryonic alkaline phosphatase) reporter gene. In these cells, ODN TTAGGG (A151) elicits a dose-dependent inhibition of CpG ODN-induced NF-κB activation (Figure 1). In addition, it functions as an inhibitor of the AIM2 inflammasome. When compared to other inflammasome inhibitors, ODN TTAGGG (A151) exhibits potent and specific inhibition of AIM2 inflammasome signaling (Figure 2). ODN TTAGGG (A151) has also been reported as an inhibitor of the cytosolic DNA sensor (CDS) cGAS. When tested with InvivoGen’s THP1-Dual™ reporter cells which express multiple CDSs and two inducible reporter genes (interferon regulatory factor (IRF)-inducible Lucia luciferase and NF-κB-inducible SEAP), ODN TTAGGG (A151) exhibits a dose-dependent inhibition of IRF and NF-κB induction by cytosolic nucleic acids (Figure 3).

**Figure 1. TLR9 signaling inhibition**

![TLR9 signaling inhibition graph](image1)

**Figure 2. Specific AIM2 inflammasome signaling inhibition**

![AIM2 inflammasome graph](image2)

**Figure 3. CDS signaling inhibition**

![CDS signaling graph](image3)