

AG-40B-0025

29-Oct-2010

Flagellin (high purity)
[FliC]

AG-40B-0025-3010	3 x 10 µg
AG-40B-0025-C010	10 µg
Source/Host MW	Salmonella typhimurium strain 14028 ~54kDa (SDS-PAGE)

Handling / Storage

Shipping	BLUE ICE
Short Term Storage	+4°C
Long Term Storage	-20°C

After reconstitution, prepare aliquots and store at -20°C. Avoid freeze/thaw cycles.

Use / Stability

Stable for at least 6 months after receipt when stored at -20°C.

MSDS available at www.adipogen.com or upon request.

Product Specifications

Specificity	Binds to human and mouse TLR5 (Toll-like receptor 5).
Biological Activity	Activation of TLR5 in human epithelial cell assays based on NF-κB luciferase fusions, on expression of IL-8 (CXCL8), CCL20, inducible nitric oxide synthase, β-defensin 2 and matrilysin (MMP-7). Maturation of dendritic cells in <i>in vitro</i> and <i>in vivo</i> assays. Adjuvant activity on foreign antigens delivered by subcutaneous and intranasal routes in mice. TLR5 can be stimulated <i>in vitro</i> by Flagellin (high Purity) at a concentration of 5-50ng/ml and <i>in vivo</i> at a starting concentration of 0.1-1µg/mouse.
Purity	≥95% (SDS-PAGE)
Formulation	Lyophilized. Contains PBS.
Concentration	0.1mg/ml after reconstitution.
Reconstitution	Reconstitute with 100µl sterile water.
Endotoxin Content	<0.01EU/µg purified protein (LAL test; Lonza).

Other Product Data

UniProt link P06179: [Flagellin \(Salmonella typhimurium\)](#)

WARNING: Intended for research use only. This product is not intended or approved for human, diagnostics, therapeutic or veterinary use. Use of this product for human or animal testing is extremely hazardous and may result in disease, severe injury, or death. **MATERIAL SAFETY DATA:** Review the complete Material Safety Data Sheet before use.

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Product Description

Flagellin is the subunit protein which polymerizes to form the filaments of bacterial flagella. It activates the innate immune system through the receptor Toll-like Receptor 5 (TLR5) and the intracellular protein NLRC4 (NLR family CARD domain-containing protein 4).

Product Specific References

1. Deletion of flagellin's hypervariable region abrogates antibody-mediated neutralization and systemic activation of TLR5-dependent immunity: C. Nempont, et al.; J. Immunol. **181**, 2036 (2008)
2. The Salmonella type-3 secretion system-1 and flagellar motility influence the neutrophil respiratory burst: T.L. Westerman, et al.; PLoS One **13**, e0203698 (2018)
3. Siglec-14 Enhances NLRP3-Inflammasome Activation in Macrophages: C.M. Tsai, et al.; J. Innate Immun. in press (2019)

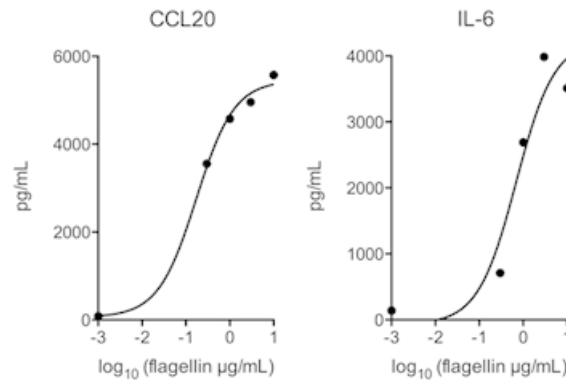


Figure 1: Flagellin (AG-40B-0025) activates TLR5 in vivo.

Method: Mice WT are injected i.v. with indicated doses of Flagellin (Prod. No. AG-40B-0025). After 2 hours, levels of CCL20 and IL-6 in the serum were measured by ELISA. As a control, mice TLR5 ^{-/-} have been injected i.v. with 10µg of Flagellin (Prod. No. AG-40B-0025), but no expression of CCL20 and IL-6 could be observed (not shown).

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