

Product Data Sheet

Product Name: Anifrolumab

Cat. No.: GC68343

Chemical Properties

Cas. No. 1326232-46-5

Formula M.Wt

Solubility Storage store at -80°C. Avoid repeated freeze.

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Anifrolumab is a **type I interferon (IFN)** receptor antagonist, a human monoclonal antibody. Anifrolumab blocks the activity of type I interferon. Anifrolumab can be used in systemic lupus erythematosus (SLE) research^{[1][2]}.

Endotoxin: <1.0 EU/mg as determined by the LAL method.

Anifrolumab (67.7 nM; 20 min) induces sustained reduction of surface IFNAR1 and abrogates STAT1 phosphorylation^[2].

Caution: Product has not been fully validated for medical applications. For research use only.

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Anifrolumab (1 and 10 µg/mL; 6 or 7 d) suppresses differentiation of B cells into plasma cells [2]. Anifrolumab inhibits type I IFN-induced ISRE signaling, with IC₅₀s ranging from 0.004 to 0.3 nM for the IFN-α subtypes, and 0.03 nM and 0.07 nM for IFN-β and IFN-ω, respectively[2]. Anifrolumab (67.7 nM) dose-dependently inhibits IFN-α production from pDCs in response to CpG-A or DNA-IC stimulation, inhibiting 87-95% of IFN-α production[2].

Western Blot Analysis[2]:

Cell Line:	Peripheral blood mononuclear cells (PBMCs)
Concentration:	67.7 nM.
Incubation Time:	20 min.
Result:	Abrogated IFN-α2-dependent and pDC supernatant-dependent STAT1 phosphorylation.

Cell Differentiation Assay[2]:

Cell Line:	Plasmacytoid dendritic cell (pDC)
Concentration:	1 and 10 µg/mL
Incubation Time:	6 or 7 days

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Result:	Inhibited pDC-mediated plasma cell differentiation in a dose-dependent manner, with a mean 76% reduction in plasma cell number relative to control antibody.
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References:

- [1]. Furie R, et al. Anifrolumab, an Anti-Interferon- α Receptor Monoclonal Antibody, in Moderate-to-Severe Systemic Lupus Erythematosus. *Arthritis Rheumatol.* 2017 Feb;69(2):376-386.
- [2]. Riggs JM, et al. Characterisation of anifrolumab, a fully human anti-interferon receptor antagonist antibody for the treatment of systemic lupus erythematosus. *Lupus Sci Med.* 2018 Apr 5;5(1):e000261.

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