Lorigerlimab

Cat. No.: HY-P99714

CAS No.: 2416595-46-3

Target: PD-1/PD-L1; CTLA-4

Pathway: Immunology/Inflammation

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description

Lorigerlimab (MGD019) is a bispecific IgG4 dual-affinity re-targeting antibody (DART). Lorigerlimab can block PD-1 and CTLA-4, and improves T-cell responses. Lorigerlimab can be used for research of metastatic castration-resistant prostate cancer (mCRPC)[1][2][3].

In Vitro

Lorigerlimab (0.01 nM-1 nM) binds to Jurkat/PD-1 cells and blocks PD-L1 binding to the cells[2].
Lorigerlimab can independently engage and block PD-1 and CTLA-4 on cells expressing one or the other checkpoint molecule (EC_{50}: 0.42 nM for PD-1+ cells, 4.8 nM for CTLA-4+ cells, 0.013 nM for PD-1 and CTLA-4+ cells)[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Lorigerlimab (75 mg/kg, i.v.) shows CTLA-4 blockade in in cynomolgus monkeys[2].
Lorigerlimab (10-100 mg/kg, i.v., 4 weeks) is well tolerated in cynomolgus monkeys, and shows a half-life about 7 days[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Cynomolgus monkeys [4]
Dosage:	75 mg/kg
Administration:	i.v.
Result:	Increased the Ki67+ T cell fraction, and showed T cell expansion in the spleen.

REFERENCES

[1]. Jason J. Luke, et al. Lorigerlimab, a bispecific PD-1×CTLA-4 DART molecule in patients (pts) with metastatic castration-resistant prostate cancer (mCRPC): A phase 1 expansion (exp) cohort. Journal of Clinical Oncology 2023 41:6_suppl, 155-155.

[2]. Berezhnoy A, et al. Development and Preliminary Clinical Activity of PD-1-Guided CTLA-4 Blocking Bispecific DART Molecule. Cell Rep Med. 2020 Dec 22;1(9):100163.

[3]. Trojaniello C, Luke JJ, Ascierto PA. Therapeutic Advancements Across Clinical Stages in Melanoma, With a Focus on Targeted Immunotherapy. Front Oncol. 2021 Jun 10;11:670726.

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

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