

Dostarlimab

Cat. No.:	HY-P99345
CAS No.:	2022215-59-2
Target:	PD-1/PD-L1
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Dostarlimab (TSR-042) is a humanized anti-PD-1 monoclonal antibody. Dostarlimab binds with high affinity to human PD-1 and competitively inhibits its interaction with its ligands, PD-L1 and PD-L2, with IC ₅₀ s of 1.8 and 1.5 nM, respectively ^[1] .									
IC₅₀ & Target	IC ₅₀ : 1.5 nM (PD-L2/ PD-1), 1.8 nM (PD-L1/ PD-1) ^[1]									
In Vitro	<p>Dostarlimab (10-10000 ng/mL) binds to native PD-1 receptor expressed on human and cynomolgus monkey CD3⁺ T cells in a dose-dependent manner^[1].</p> <p>Dostarlimab (0-375 nM; 48 h) increases IL-2 production with an EC₅₀ of approximately 1 nM in a human CD4⁺ T-cell MLR assay, increases IL-2 production with an EC₅₀ of approximately 0.1 nM in staphylococcal enterotoxin B (SEB)-stimulated PBMCs, enhances interferon (IFN)-γ release with an EC₅₀ of approximately 0.5 nM^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>									
In Vivo	<p>Dostarlimab (200 μg/mouse; i.p.; twice weekly for 35 days) shows antitumor activity in humanized mouse models^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Humanized NOG-EXL mice, A549 and MDA-MB-436 tumor model^[1]</td> </tr> <tr> <td>Dosage:</td> <td>200 μg/mouse</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection; twice weekly for 35 days</td> </tr> <tr> <td>Result:</td> <td>Resulted in great inhibition of tumor growth in an A549 lung cancer model (tumor growth inhibition [TGI] of 62% at termination). The antitumor activity was associated with a reduction in tumor-associated regulatory T cells and a trend toward increased tumor-infiltrating CD8⁺ T cells. Inhibited tumor growth of MDA-MB-436 breast cancer model (TGI of 53%).</td> </tr> </table>		Animal Model:	Humanized NOG-EXL mice, A549 and MDA-MB-436 tumor model ^[1]	Dosage:	200 μ g/mouse	Administration:	Intraperitoneal injection; twice weekly for 35 days	Result:	Resulted in great inhibition of tumor growth in an A549 lung cancer model (tumor growth inhibition [TGI] of 62% at termination). The antitumor activity was associated with a reduction in tumor-associated regulatory T cells and a trend toward increased tumor-infiltrating CD8 ⁺ T cells. Inhibited tumor growth of MDA-MB-436 breast cancer model (TGI of 53%).
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REFERENCES

[1]. Kumar S, et al. Preclinical characterization of dostarlimab, a therapeutic anti-PD-1 antibody with potent activity to enhance immune function in in vitro cellular assays and in vivo animal models. MAbs. 2021 Jan-Dec;13(1):1954136.

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

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