

Modakafusp alfa

Cat. No.:	HY-P99744
CAS No.:	2254522-19-3
Target:	CD38
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Modakafusp alfa (TAK-573) is a humanized, anti-CD38 IgG4 monoclonal antibody fused to 2 attenuated IFN α 2b molecules, which delivers interferon-alpha to CD38-expressing cells. Modakafusp alfa has direct anti-proliferative activity on multiple myeloma (MM) cancer cells in vitro and induces robust and durable antitumor responses in MM xenograft tumor models. Modakafusp alfa in combination with anti-PD-1 antibodies induces immunomodulation and antitumor responses with good tolerance in mice ^{[1][2][3][4]} .
In Vitro	Modakafusp alfa (24 h) rapidly activates NK cells, and improves their degranulation and anti- multiple myeloma (MM) effectivity ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Modakafusp alfa shows immunomodulatory and antitumor activity in IFN α -insensitive, immunocompetent murine multiple myeloma tumor models ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Dan T. Vogl MD, et al. TAK-573, an Anti-CD38/Attenuated Ifn α Fusion Protein, Has Clinical Activity and Modulates the Ifn α Receptor (IFNAR) Pathway in Patients with Relapsed/Refractory Multiple Myeloma. *Blood*. 2020, 136 (1), 37-38.

[2]. Fatholahi M, et al. TAK-573, an anti-CD38-targeted attenuated interferon alpha (IFN α) fusion protein, showed anti-myeloma tumor responses in combination with standard of care (SOC) agents in multiple myeloma (MM) xenograft tumor models in vivo[J]. *Clinical Lymphoma, Myeloma and Leukemia*, 2019, 19(10): e116.

[3]. Hara T, et al. A murine reactive version of TAK-573 (anti-CD38 attenuated IFN α fusion protein) shows immunomodulatory and antitumor activity, alone and in combination with standard-of-care agents, in IFN α -insensitive, immunocompetent murine multiple myeloma tumor models[J]. *Cancer Research*, 2020, 80(16_Supplement): 5546-5546.

[4]. Bruins W S C, et al. Modakafusp alfa (TAK-573), a novel CD38-targeting attenuated interferon-alpha immunocytokine, kills MM cells via NK cell activation[J]. *Blood*, 2022, 140(Supplement 1): 4236-4237.

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

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