Product Data Sheet

Talquetamab

Cat. No.:	HY-P99394
CAS No.:	2226212-40-2
Molecular Weight:	146000
Target:	CD3
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

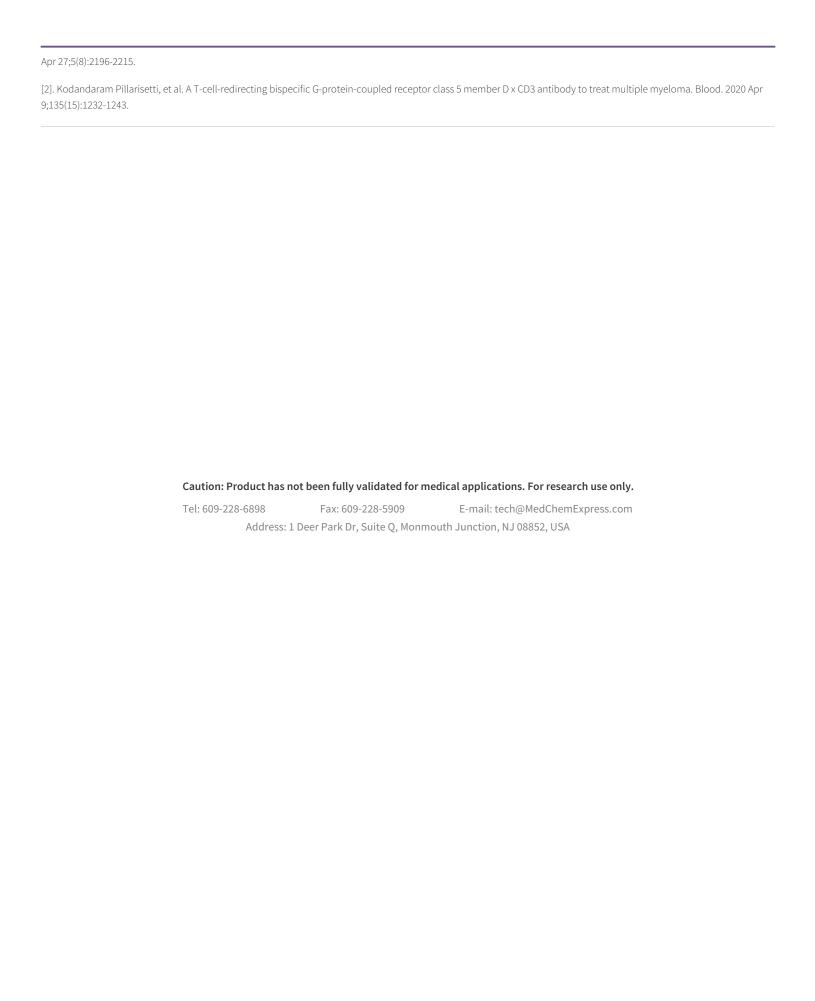|	
Description	Talquetamab (JNJ-64407564) is a humanized bispecific antibody that binds to GPRC5D (member of G protein-coupled receptor family C5 group D) and CD3 to induce T cell-mediated killing of GPRC5D-expressing MM cells through T cell recruitment and activation. Talquetamab (JNJ-64407564) has antitumor activity[1][2].
In Vitro	Talquetamab (0.00128-4.0 µg/mL, 48 h) effectively induces multiple myeloma cell lysis and leads to a significant increase in the proportion of activated CD^{4+} and CD^{8+} T cells, as well as to a dose-dependent increase in the levels of granzyme B and inflammatory cytokines such as IL-6, IL-8 and TNF-α[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Talquetamab (JNJ-64407564) (0.1-50 µg, s.c. or i.v.) has significant antitumor activity in H929 and MM mouse models[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Female NSG mice with H929 cells[2]
Dosage:	0.1-10 µg (0.005 mg/kg)
Administration:	Subcutaneous injection; on days 0, 3, 5, 7, and 10
Result:	Completely blocked tumor formation at 1 µg and 10 µg doses.

Animal Model:	Female NSG mice with human MM cells[2]
Dosage:	0.1-50 µg (0.005 mg/kg)
Administration:	Intravenous injection; on days 15, 18, 22, 24, 29, 32, and 36
Result:	Significantly inhibited tumor growth by 65% at the dose of 1µg and showed significant anti-tumor activity at 10 and 50 µg with complete tumor regression.

REFERENCES

[1]. Christie P M Verkleij, et al. Preclinical activity and determinants of response of the GPRC5DxCD3 bispecific antibody talquetamab in multiple myeloma. Blood Adv. 2021

Apr 27;5(8):2196-2215.

[2]. Kodandaram Pillarisetti, et al. A T-cell-redirecting bispecific G-protein-coupled receptor class 5 member D x CD3 antibody to treat multiple myeloma. Blood. 2020 Apr 9;135(15):1232-1243.

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

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