

Sotrovimab

Cat. No.:	HY-P99340
CAS No.:	2423014-07-5
Target:	SARS-CoV
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Sotrovimab (VIR 7831) is a human IgG1 κ pan-sarbecovirus monoclonal antibody (mAb), neutralizes SARS-CoV-2, SARS-CoV-1, and multiple other sarbecoviruses. Sotrovimab is developed based on S309, exhibits a long half-life and great bioavailability in the respiratory mucosa. Sotrovimab could result in immune-mediated viral clearance and prevent progression of Covid-19 early in the course of disease ^{[1][2]} .
In Vitro	Sotrovimab neutralizes both SARS-CoV-2 and SARS-CoV, but does not directly block virus receptor binding ^[2] . Sotrovimab (100 μ g/mL, injected for 200 s, $v=30$ μ L/min) binds efficiently to surface-expressed SARS-CoV-2 S ^[3] . Sotrovimab (0.3 ng/mL-20 mg/mL; 30 min) neutralizes SARS-CoV-2 pseudo-typed virus in vitro, and also against the Alpha, Beta, Gamma, Delta and Kappa variant viruses with IC ₅₀ s of 187.2 ng/mL, 71.9 ng/mL, 73.11 ng/mL, 51.3 ng/mL, and 118.64 ng/mL, respectively ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Sotrovimab (5 mg/kg, 10 mL; via intravenous catheter; single dose) provides protective exposures against susceptible variants in the lung of female cynomolgus monkey for up to 28 days ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Gupta A, et al; COMET-ICE Investigators. Early Treatment for Covid-19 with SARS-CoV-2 Neutralizing Antibody Sotrovimab. N Engl J Med. 2021 Nov 18;385(21):1941-1950.
- [2]. Case JB, et al. Resilience of S309 and AZD7442 monoclonal antibody treatments against infection by SARS-CoV-2 Omicron lineage strains. Nat Commun. 2022 Jul 2;13(1):3824.
- [3]. Cathcart A L, et al. The dual function monoclonal antibodies VIR-7831 and VIR-7832 demonstrate potent in vitro and in vivo activity against SARS-CoV-2[J]. biorxiv, 2022: 2021.03. 09.434607.
- [4]. Aweda TA, et al. In vivo biodistribution and pharmacokinetics of sotrovimab, a SARS-CoV-2 monoclonal antibody, in healthy cynomolgus monkeys. Eur J Nucl Med Mol Imaging. 2022 Oct 28:1-12.

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

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