

## Trastuzumab deruxtecan

<b>Cat. No.:</b>	HY-138298A
<b>CAS No.:</b>	1826843-81-5
<b>Target:</b>	Antibody-Drug Conjugates (ADCs); EGFR
<b>Pathway:</b>	Antibody-drug Conjugate/ADC Related; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)

## Trastuzumab deruxtecan

### SOLVENT & SOLUBILITY

<b>In Vitro</b>	H <sub>2</sub> O : 10 mg/mL (Need ultrasonic and warming)
<b>In Vivo</b>	1. Add each solvent one by one: PBS Solubility: 50 mg/mL (Infinity mM); Clear solution; Need ultrasonic

### BIOLOGICAL ACTIVITY

<b>Description</b>	Trastuzumab deruxtecan (DS-8201a) is an anti-human epidermal growth factor receptor 2 (HER2) antibody-drug conjugate (ADC). Trastuzumab deruxtecan is composed of a humanized anti-HER2 antibody, an enzymatically cleavable peptide-linker, a topoisomerase I inhibitor (a toxin component of Dxd). Trastuzumab deruxtecan can be used for the research of HER2-positive breast cancer and gastric cancer <sup>[1][2]</sup> .
<b>In Vitro</b>	Trastuzumab deruxtecan (1 pM-10 nM; 5 days) inhibits the growth of HER2-positive KPL-4 cells, with an IC <sub>50</sub> of 109.7 pM <sup>[2]</sup> . Trastuzumab deruxtecan (10 nM; 5 days) shows bystander killing effects in HER2-negative MDA-MB-468 cells <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	Trastuzumab deruxtecan (3 mg/kg; a single i.v.) shows antitumor activity against not only HER2-positive tumors but also HER2-negative tumors under the co-inoculated condition <sup>[2]</sup> . Trastuzumab deruxtecan (10 mg/kg; i.v. on days 0 and 7) inhibits the tumor growth in in EMT6-hHER2 syngeneic mouse model <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

- Biomed Pharmacother. 2023 Apr 25;163:114751.

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## REFERENCES

- [1]. Kumagai K, et al. Interstitial pneumonitis related to trastuzumab deruxtecan, a human epidermal growth factor receptor 2-targeting Ab-drug conjugate, in monkeys. *Cancer Sci.* 2020 Dec;111(12):4636-4645.
- [2]. Kotani D, et, al. Trastuzumab deruxtecan for the treatment of patients with HER2-positive gastric cancer. *Ther Adv Med Oncol.* 2021 Jan 7;13:1758835920986518.
- [3]. Ogitani Y, et, al. Bystander killing effect of DS-8201a, a novel anti-human epidermal growth factor receptor 2 antibody-drug conjugate, in tumors with human epidermal growth factor receptor 2 heterogeneity. *Cancer Sci.* 2016 Jul;107(7):1039-46.
- [4]. Iwata TN, et, al. [Fam-] trastuzumab deruxtecan (DS-8201a)-induced antitumor immunity is facilitated by the anti-CTLA-4 antibody in a mouse model. *PLoS One.* 2019 Oct 1;14(10):e0222280.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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