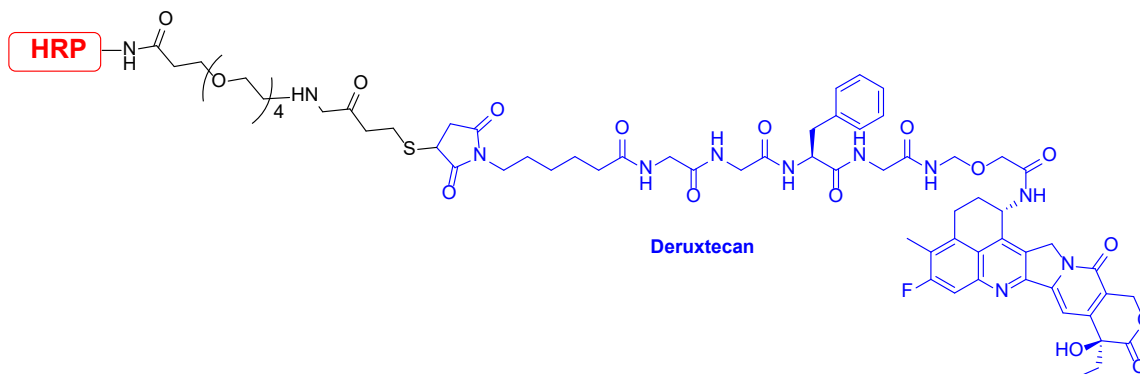


## HRP–Deruxtecan (Dxd) (1:1) Conjugate

Product Number: **CM53215**

Lyophilized powder, 0.5 mg per vial, ≥99% conjugates by SEC HPLC



### Product Description

Deruxtecan is an exatecan (Exa) derivative, appended with a cleavable peptide linker, is a very potent inhibitor of topoisomerase I and anticancer agent. Deruxtecan is used to prepare antibody-drug conjugates, such as trastuzumab Deruxtecan (T-DXd, also known as Enhertu<sup>®</sup>, Daiichi Sankyo), targeting HER2 and is approved in HER2-expressing breast (BC) and gastric (GC) cancers. This HRP-Deruxtecan conjugate is designed with similar linker chemistry as ADCs and PDCs prepared by our customer using CellMosaic’s Antibody Deruxtecan Conjugation Kit (Cat#: CM11431) and Protein Deruxtecan Conjugation Kit (Cat#: CM11432). The conjugate is synthesized at CellMosaic for the customer’s use in horseradish peroxidase (HRP) based assay. A long flexible PEG linker is also incorporated in the conjugate to retain the HRP activity and Deruxtecan binding. The final conjugate is HPLC-purified to obtain 1:1 Deruxtecan-labeled HRP conjugate, and it is lyophilized from PBS containing sugar-based stabilizer for easy shipping and storage.

The product is sold as 1 vial of 0.5 mg (Cat# CM53215-0.5MG) or 4 vials of 0.5 mg (Cat# CM53215-2MG). For bulk orders, please contact us for a quote.

### Application

- Assay development for the quantitation and detection of Deruxtecan labeled biopolymers (ADCs and PDCs) and Deruxtecan drug released from the conjugate.
- Indirect and competitive ELISA assay

### Key Features

- Lyophilized powder ready for use after reconstitution with water, no need for external buffer.
- HPLC-purified single-labeled conjugate, 1:1 HRP–Deruxtecan.
- Retained HRP activity, 200–300 units/mg protein (1 unit is the amount of enzyme that will form 1.0 mg purpurogallin from pyrogallol in 20s at pH 6.0 at 20°C).
- A long flexible PEG linker is incorporated to retain the HRP activity and Deruxtecan binding.
- Amount accurately determined by UV/HPLC analysis.

**Storage/Stability**

- Recommended storage of the product is below -20°C.
- Expiration before defrosting is 1 year after receiving.
- Once defrosted maintain at 2-8°C.
- For best quality use within 1 week of defrosting.

**Selected References for Deruxtecan ADC**

1) Takashi Nakada, et al. Novel antibody drug conjugates containing exatecan derivative-based cytotoxic payloads. *Bioconjugic & Medicinal Chem. Lett.* **2016**;26: 1542–45.

2) Yusuke Ogitani, 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**;107(7):1039–46.

3) Naoki Takegawa, et al. DS-8201a, a new HER2-targeting antibody-drug conjugate incorporating a novel DNA topoisomerase I inhibitor, overcomes HER2-positive gastric cancer T-DM1 resistance. *Int. J. Cancer.* **2017**;141:1682-89.