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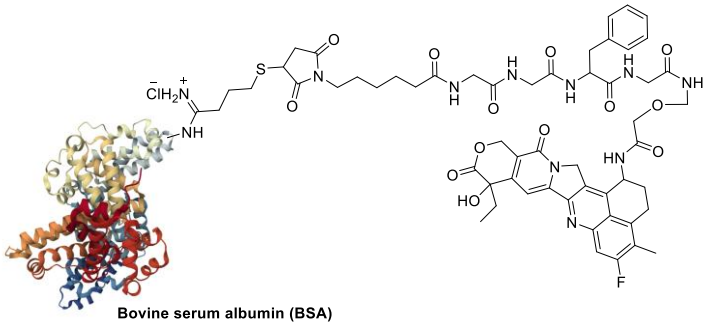
BSA-Deruxtecan Conjugate
Lyophilized powder,
1 mg per vial,
≥99% conjugates by SEC HPLC

Product Numbers:
CM52140-1MG and
CM52140-5MG



Product Description

Deruxtecan is an Exatecan (Exa) derivative conjugated through a cleavable peptide linker. It is a highly potent topoisomerase I inhibitor with strong anticancer activity. Deruxtecan serves as the cytotoxic payload in antibody-drug conjugates (ADCs) such as trastuzumab deruxtecan (T-DXd, Enhertu®, Daiichi Sankyo), which targets HER2 and is approved for the treatment of HER2-expressing breast (BC) and gastric cancers (GC).

This **bovine serum albumin** (BSA)-Deruxtecan conjugate is designed using the same linker chemistry as the protein-drug conjugates (PDCs) prepared with CellMosaic's Protein Deruxtecan Conjugation Kit (Cat. No. CM11432). The conjugate is synthesized at CellMosaic under **endotoxin-free conditions** and contains an average drug-to-protein ratio of approximately 3–5 Deruxtecan molecules per BSA molecule, making it suitable for immunization and immunoassay development applications.

The final conjugate is lyophilized from PBS containing a sugar-based stabilizer to facilitate convenient shipping and long-term storage.

The product is sold as either 1 vial of 1 mg (Cat# CM52140-1MG) or 5 vials of 1 mg (Cat# CM52140-5MG). For bulk orders, please contact us for a quote.

Applications

- Assay development for detection of Deruxtecan or Deruxtecan metabolites in vitro or in vivo.
- Antibody discovery via immunization and hapten recognition.
- Indirect and competitive ELISA assay.

Key Features

- Lyophilized powder and ready for usage after reconstitution with water, no need for external buffer.
- Optimized loading with an average of 3 to 5 Deruxtecan molecules per BSA.
- Low endo-toxin formulation for immunization and in vivo studies.
- 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 and Albumin based Drug Delivery.

1. Takashi Nakada, et al. Novel antibody-drug conjugates containing exatecan derivative-based cytotoxic payloads. *Bioorg. Med. Chem. Lett.* 2016; 26:1542–1545.
   Highlight: Developed Exatecan derivative-based payloads for ADCs with potent antitumor activity and stable linker technology.
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):1039–1046.
   Highlight: Demonstrated the bystander killing effect of DS-8201a in HER2-heterogeneous tumors.
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; 141:1682–1689.
   Highlight: Showed that DS-8201a overcomes T-DM1 resistance in HER2-positive gastric cancer models.
4. Ella N. Hoogenboezem, et al. Harnessing Albumin as a Carrier for Cancer Therapies. *Adv. Drug Deliv. Rev.* 2018; 130:144–175.
   Highlight: Reviewed albumin-based drug delivery and albumin-drug conjugate strategies for cancer therapeutics.