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Anti-Human CEACAM5 (Tusamitamab Biosimilar)

Catalog Number:	506501, 506502, 506503
Size:	1 mg, 5 mg, 20 mg
Target Name:	CD66e, CEACAM5, CEA, Carcinoembryonic Antigen-Related Cell Adhesion Molecule 5
Regulatory Status:	RUO

PRODUCT DETAILS

Clone:	Tusamitamab
Application:	Flow cytometry, animal model study
Reactivity:	Human
Format:	Liquid
Product Description:	Tusamitamab Biosimilar, Human CEACAM5 Monoclonal Antibody
Isotype:	Human IgG1
Clonality:	Recombinant
Immunogen:	Human CEACAM5
Species specificity:	Human
Purity:	>95% by reducing SDS-PAGE
Grade:	In vivo
Min Sample Size:	1 mg
Storage Conditions:	4ºC
Maximal Shelf Life:	12 months
Synonyms:	CD66e
RRID:	AB_3739340
Antibody Type:	Recombinant
Reactivity:	Human

BACKGROUND INFORMATION

Tusamitamab, as a therapeutic, is an antibody–drug conjugate (ADC) that combines a humanized monoclonal antibody targeting carcinoembryonic antigen-related cell adhesion molecule 5 (CEACAM5) with a potent cytotoxic payload. Structurally, the antibody component belongs to the human immunoglobulin G1 kappa (IgG1κ) subclass and has a molecular mass of approximately 150 kilodaltons (kDa). It is composed of two identical heavy chains and two identical light chains linked by disulfide bonds in the Y-shaped conformation typical of IgG molecules. The antibody is produced recombinantly in mammalian cell systems, such as Chinese Hamster Ovary (CHO) cells, ensuring proper folding and glycosylation.

The variable regions of the heavy (VH) and light (VL) chains contain complementarity-determining regions (CDRs) that mediate high-affinity binding to a specific extracellular epitope on CEACAM5, a cell-surface glycoprotein involved in cell adhesion and intercellular signaling. This antigen is largely restricted to certain epithelial lineages, making it an accessible and stable target for molecular binding studies. The antibody's specific recognition enables selective internalization when bound to CEACAM5 at the cell membrane.

The Fc (fragment crystallizable) region of Tusamitamab provides structural stability and extended half-life via neonatal Fc receptor (FcRn) recycling.