

Product Information

SILu™MAB Cetuximab - Stable Isotope Labeled Monoclonal Antibody Standard
 recombinant, expressed in CHO cells

Catalog Number **MSQC19**
 Storage Temperature **-20 °C**

Product Description

SILu™MAB Cetuximab is a recombinant, stable isotope-labeled, monoclonal antibody which incorporates [¹³C₆, ¹⁵N₄]-Arginine and [¹³C₆, ¹⁵N₂]-Lysine. Expressed in CHO cells, SILu™MAB Cetuximab is designed to be used as an internal standard for analysis of Cetuximab in human serum.

Recommended surrogate peptide sequences are indicated in Table 1. Suggested MRM parameters are available for download in several formats on the product display page at www.sigmaaldrich.com.

Each vial of SILu™MAB Cetuximab contains the labeled antibody lyophilized from a solution of phosphate buffered saline. Vial content was determined by measuring A₂₈₀ and using an extinction coefficient (E^{0.1%}) of 1.4.

Sequence Information

SILu™MAB Cetuximab Heavy Chain:

QVQLKQSGPGLVQPSSLSITCTVSGFSLTNYGVHWVRQSP
 GKGLEWLGVISGGNTDYNTPFTSRLSINKDNSK**SQVFFK**M
 NSLQSNDAIYYCARALTYDYEFAYWGQGLVTVSAASTK
 GPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGA
 LTSGVHTFPAVLQSSGLYSLSSVTVPSSSLGTQTYICNVN
 HKPSNTKVDKRVEPKSCDKHTCPPCPAPELLGGPSVFLFP
 PKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVH
 NAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNK
 ALPAPIEKTIISKAKGQPREPQVYTLPPSREEMTKNQVSLTCL
 LVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLYS
 KLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPG

Table 1.

Cetuximab-specific peptide sequences liberated from SILu™MAB Cetuximab by trypsin digestion

Unique Peptide Sequence	Location
SQVFFK ¹	Heavy chain
DILLTQSPVILSVSPGER	Light chain
ASQSIGTNIHWYQQR	Light chain
YASESISGIPSR	Light chain

SILu™MAB Cetuximab Light Chain:

DILLTQSPVILSVSPGERVSFSCRA**ASQSIGTNIHWYQQR**TN
 GSPRLLIK**YASESISGIPSR**FSGSGSGTDFTLINSVSESD
 IADYYCQQNNNWPPTTFGAGTKLELKRVAAPSVFIFPPSDE
 QLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVT
 EQDSKDYSLSSLTLSKADYEKHKVYACEVTHQGLSSPV
 TKSFNREGC

Precautions and Disclaimer

This product is for R&D use only. Not for drug, household or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

SILu™MAB Cetuximab recovery is maximized when 0.1% formic acid is used for reconstitution of the lyophilized product. Reconstitution with other solvents may reduce recovery. Do not freeze after reconstitution.

1. Briefly centrifuge the vial at 10,000 × g to collect the product at the bottom of the vial.
2. Add 500 µL of ultrapure water containing 0.1% formic acid to the vial.
3. Mix the contents by gently inverting the vial a minimum of 5 times.
4. Allow the vial to stand at room temperature for at least 15 minutes and repeat mixing by inversion.

Storage/Stability

Store the lyophilized product at **-20 °C**.

Reference

1. Iwamoto, N., and Shimada, T., Regulated LC-MS/MS bioanalysis technology for therapeutic antibodies and Fc-fusion proteins using structure-indicated approach. *Drug Metabolism and Pharmacokinetics*, **34(1)**, 19–24 (2019).

Legal Information

Sold under license from DuPont, U.S. Patent No. 7,396,688. This product is licensed under U.S. Patent No. 7,396,688 and foreign counterparts from E. I. du Pont de Nemours and Company. The purchase of this product conveys to the buyer the nontransferable right to use the purchased amount of the product for research and development only, including services for a third party for consideration. The buyer cannot sell or otherwise transfer this product, its components or materials made using this product or its components to a third party. Information about licenses for excluded uses is available from: E. I. du Pont de Nemours and Company; Attn: Associate Director, Commercial Development; DuPont Experimental Station E268; 200 Powdermill Rd.; Wilmington, DE 19803; 1-877-881-9787 (voice), 1-302-695-1437 (fax), licensing@dupont.com.

SILu is a trademark of Sigma-Aldrich Co. LLC.

PJ,MAM 10/19-1