

Product Information

KBML-187786-01/10

FSL-biotin

FSL-CONJ(1Biotin)-SC2-L1

Catalogue Numbers **187786-2-R&D**

Unit size **2 mg**

Storage temperature below minus 10 °C

Product Description

FSL-biotin is a KODE™ technology construct designed to label hydrophobic surfaces including living cells with biotin. All KODE™ FSL constructs consist of three essential designable features; a functional component (F), a spacer (S), and a diacyl lipid (L). FSL-biotin R&D-CONJ(1Biotin)-SC2-L1 is comprised of a monomer of biotin (vitamin B7) representing F, conjugated to a maleimide-bearing carboxymethylglycine based linker (SC2) in turn conjugated to an activated adipate derivative of dioleoylphosphatidylethanolamine (L1).

All FSL constructs disperse in biocompatible media and spontaneously and stably incorporate into cell membranes. Cells modified with KODE™ constructs are known as kodeocytes¹ and usually maintain their normal vitality and functionality.

FSL-biotin has been specifically designed to create biotinylated live cells (kodeocytes) but can also be used to modify other hydrophobic surfaces including fixed cells and solid phase surfaces. Biotinylated kodeocytes can be reacted with a variety of biotin-binding protein constructs² including fluorescent labeled avidin and avidinylated beads/solid surfaces.

Precautions and Disclaimer

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

MSDS sheets and other technical information is available at kodebiotech.com/sales/order_home.php

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Preparation Instructions

The product should be reconstituted at a concentration of 2 mg/ml in saline or PBS. Buffered solutions are preferred for long-term storage. Product should not be reconstituted in water unless for immediate use as product is unstable when stored in water. The 2 mg/ml Stock Solution can be frozen in aliquots for later usage. Thawed product should be briefly sonicated before use.

Stock Solutions can be diluted in buffers containing protein. Stock solutions should not be diluted in buffers containing lipids (e.g. serum) or other hydrophobic products as the FSL will associate with this material and insertion into cells will be reduced.

Storage/Stability

Store unopened product at below minus 10 °C
Store 2 mg/ml Stock Solution aliquots at below minus 10 °C and avoid repeated freezing and thawing of solutions.

Solutions in PBS, pH 7, can be stored at 2-8 °C for up to 2 weeks.

Product Profile

Cell labeling – Add 1 volume of FSL-biotin diluted in PBS (concentration 10 – 100 µg/ml) to 1 volume of cells. Incubate for approximately 1 hour (range 5 minutes – 24 hours) at a temperature of 37 °C (range 4 - 37 °C) to allow molecules to spontaneously insert into cell membranes. Wash (may be optional). To avidinylate cells add an excess of avidin diluted in appropriate buffer. Wash.

Rate of FSL insertion is primarily determined by FSL concentration, time and temperature.

FSL constructs will remain in active cell membranes for up to 12 hours and indefinitely in inactive membranes (such as red cells) in serum-free media.

References

1. *Current Opinions in Haematology* 2009; 16(6):467-472
2. *Transfusion* 2008; 48 (2S) Suppl.: 194A

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