

## Product Information

KBML-199283-01/10

### FSL-B(tri)

FSL-B(GALa3[Fa2]GALb)-SA1-L1

Catalogue Numbers **199283-2-R&D**

Unit size **2 mg**

Storage temperature below minus 10 °C

### Product Description

FSL-B(tri) is a KODE™ technology construct designed to label hydrophobic surfaces including living cells with blood group B trisaccharide. All KODE™ FSL constructs consist of three essential designable features; a functional component (F), a spacer (S), and a diacyl lipid (L). FSL-B(GALa3[Fa2]GALb)-SA1-L1 is comprised of the blood group B trisaccharide Gal $\alpha$ 3(Fuc $\alpha$ 2)Gal $\beta$  representing F, conjugated via an O(CH $_2$ ) $_3$ NH spacer (SA1) 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 kodecytes<sup>1</sup> and usually maintain their normal vitality and functionality.

FSL-B(tri) has been specifically designed to create live cells (kodecytes) expressing blood group B antigens but can also be used to modify other hydrophobic surfaces including fixed cells and solid phase surfaces. This product can be used to attach reproducible and controlled levels of blood group B antigens (generic B due to its trisaccharide structure) to group O or A erythrocytes<sup>2</sup>. These kodecytes will react with most anti-B blood grouping reagents including polyclonal reagents. It is of note that higher concentrations of FSL-B(tri) are required than FSL-A(tri) to achieve similar serology – this is believed to be due to the nature of antibodies to B antigen.

### 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](http://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-B(tri) diluted in PBS (concentration 2 – 50  $\mu$ g/ml) to 1 volume of cells. Incubate for 2 hours (range 1– 12 hours) at a temperature of 37 °C (range 4 - 37 °C) to allow molecules to spontaneously insert into cell membranes. Wash (may be optional). Store kodecytes in serum free media.

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* 2007; 47: 876-882

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