



**$\alpha$ -(1-6) Fucosidase**  
 $\alpha$ -L-Fucoside fucohydralase

**Source**  
recombinant *Elizabethkingia miricola* in *E. Coli*

**Catalog Number**  
E-F006

**Certification of Analysis Lot Number**  
602.1A

**EC**  
3.2.1.51

**Contents**  
1 vial:  $\alpha$ -(1-6) Fucosidase  
1 vial: 5x Reaction buffer – 250 mM NaHPO<sub>4</sub>, pH 5

**Specific Activity** >1.5 U/mg  
**Activity** >1 U/ml

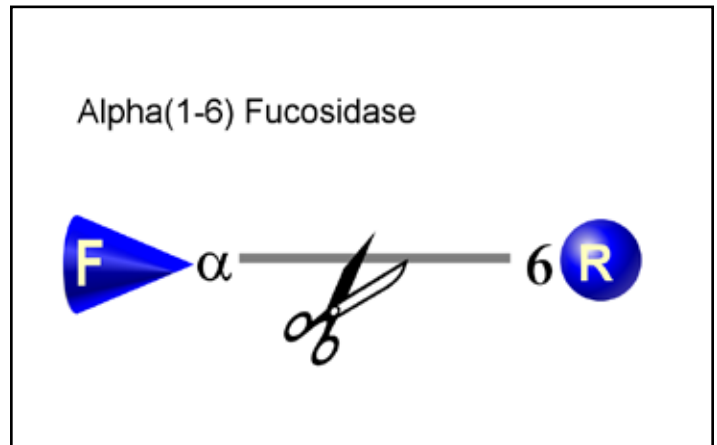
**Application**  
•Determination of core fucosylation

**Molecular Weight** ~50,000 daltons

**Specific Activity**  
One unit of QA-Bio  $\alpha$ -(1-6) Fucosidase is defined as the amount of enzyme required to produce 1  $\mu$ mole of methylumbelliferone in 1 minute at 37°C, pH 5.0 from 4-methylumbelliferyl- $\alpha$ -L-fucopyranoside.

**Formulation**  
The enzyme is provided as a sterile-filtered solution in 20 mM Tris HCl pH 7.5 and 25 mM NaCl.

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**Specificity**  
 $\alpha$ (1-6) linked core fucose when covalently attached to a reporter molecule at the reducing terminus. The one exception is that a terminal unbranched  $\alpha$ (1-3) or  $\alpha$ (1-4) fucose is cleaved in the absence of any reporter molecule. These substrates do not apparently occur in nature.

Reporter molecules known to support cleavage are amino-naphthalene disulfonic and trisulfonic acids and 2-aminobenzoic acid(2-AA). However, 2-aminobenzamide(2-AB) will not support cleavage. Shorter oligosaccharides such as trimannosylchitobiose are more completely digested than longer derivatives which may require longer incubation times.

**Stability**  
Stable at least 12 months when stored properly. Several days exposure to ambient temperatures will not reduce activity.

**Storage**  
Store enzyme at 4°C. Do not freeze.

**E-F006  $\alpha$ -(1-6) Fucosidase**  
**Specifications - Protocol**

866-384-2272  
760-568-3657  
fax 760-262-3139

### **Purity**

QA-Bio  $\alpha$ -(1-6) Fucosidase is tested for contaminating protease as follows: 10  $\mu$ g of denatured BSA is incubated at 37°C for 24 hours with 2  $\mu$ l of enzyme. SDS-PAGE analysis of the treated BSA shows no evidence of degradation.

Each lot is also tested for contaminating activities by incubating the enzymes with the appropriate substrates for 24 hours; the detection limit is 5  $\mu$ U/ml (IUB). A passing lot will have no detectable activity.

### **Directions for use**

1. Add up to 1 nmol of labeled oligosaccharide to tube.
2. Add de-ionized water to a total of 15  $\mu$ l.
3. Add 4  $\mu$ l 5x Reaction Buffer 5.0.
4. Add 1  $\mu$ l  $\alpha$ -(1-6) Fucosidase.
5. Incubate overnight at 37°C.

### **Warranties and liabilities**

QA-Bio, LLC warrants that the above product conforms to the specifications described herein. Should the product fail for reasons other than through misuse QA-Bio, LLC will, at its option, replace free of charge or refund the purchase price. This warranty is exclusive and QA-Bio, LLC makes no other warrants, expressed or implied, including any implied conditions or warranties of merchantability or fitness for any particular purpose. QA-Bio, LLC shall not be liable for any incidental, consequential or contingent damages.

This product is intended for *in vitro* research only.

*updated April 21, 2009*