



**$\alpha$ -(1-3,4) Fucosidase**  
 $\alpha$ -L-Fucoside fucohydralase

**Source**  
recombinant from *Xanthamonas*

**Catalog Number**  
E-F134

**Certification of Analysis Lot Number**  
606.1A

**EC 3.2.1.51**

**Contents**  
1 vial:  $\alpha$ -(1-3,4) Fucosidase  
20 mM Tris-HCl, 25 mM NaCl pH 7.5  
1 vial: 5x Reaction buffer – 250 mM NaHPO<sub>4</sub>, pH 5

**Specific Activity** 2.3 U/mg  
**Activity** >0.5 U/ml

**Application**  
•Deglycosylating of proteins with Lewis structures

**Molecular Weight** ~62,000 daltons

**Specific Activity**  
One unit of QA-Bio Fucosidase is defined as the amount of enzyme required to cleave 1  $\mu$ mole of fucose from Lewis X trisaccharide, 4-methylumbelliferyl glycoside in 1 minute at 37°C, pH 5.0.

**Specificity**  
 $\alpha$ -(1-3,4)-Fucosidase cleaves  $\alpha$ -(1-3) and  $\alpha$ -(1-4)-linked fucose GlcNAc of a Gal-GlcNAc disaccharide structure. The presence of sialic acid (but not fucose) linked to the galactose will block cleavage.

**Fucosidase  $\alpha$ -(1-3,4)**



**Formulation**

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

**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.

**Purity**

QA-Bio  $\alpha$ -(1-3,4) 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.

**E-F134  $\alpha$ -(1-3,4) Fucosidase**  
**Specifications - Protocol**

### Directions for use

1. Add up to 1 nmol of 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  $\alpha$ -(1-3,4) Fucosidase.
5. Incubate 1 hour at 37°C.

Progress may be monitored by SDS-PAGE if the size differential between native and de-glycosylated protein is sufficient for detection.

### 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 6/16/2016*