

Active Recombinant Full Length Thermotoga maritima α -L-fucosidase, His tagged

Cat. No. a-L-fucosidase-09T **Lot. No.** (See product label)

SPECIFICATION

Product Overview	This product is a recombinant α -L-fucosidase (glycosyl hydrolase family GH29, EC #3.2.1.51) cloned from <i>Thermotoga maritima</i> , a hyperthermophilic bacterium, and expressed in <i>Escherichia coli</i> with an N-terminal 8xHis-tag. The 8xHis tag may be removed by digestion with FasTEV™, a TEV protease with enhanced stability and catalytic activity.
Species	<i>Thermotoga maritima</i>
Source	E.coli
Description	α -L-Fucosidase, Microorganism (EC 3.2.1.51) is an enzyme that catalyzes the chemical reaction. Serum activity of α -L-Fucosidase, Microorganism, a lysosomal enzyme present in all mammalian cells, has been proposed as a marker of hepatocellular carcinoma (HCC). Thermophilic Fucosidase is active at a wide range of temperatures (37 to 97 centigrade), with an optimum of 70 centigrade or higher. The specificity of Thermophilic Fucosidase depends on linkage type and glycan substructure.
Reconstitution	Dissolve the lyophilized product in 100 μ L of molecular grade water to make a 2,000 units/mL solution in 1 $\times$ Reaction Buffer. Once reconstituted, store the enzyme at -20 to 4 centigrade for up to 1 month. Aliquoting is recommended to avoid repeated freeze-thaw cycles.

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Activity assay

One unit of enzyme is added to 100 μ L of 500 μ M pNP-Fuc in 1 $\times$ Reaction Buffer 7 (50 mM sodium citrate, pH 5.0) at 37 centigrade for 30 min, followed by addition of 100 μ L of a stop solution (0.2 M sodium borate, pH 9.8). Measure absorption at 405 nm on a plate reader.

Unit Definition

One unit is defined as the amount of Thermophilic Fucosidase required to catalyze the release of 1 nmole p-nitrophenol (pNP) from p-nitrophenyl- α -L-fucopyranoside (pNP-Fuc) per min at 37 centigrade in 100 μ L 1 $\times$ Reaction Buffer (50 mM Tris, 100 mM NaCl, pH 7.5).

GENE INFORMATION
Official Symbol

α -L-fucosidase

Synonyms

α -L-fucosidase

