

Recombinant Human FUT2 Protein, C-His-tagged

Cat. No. FUT2-13H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human FUT2 Protein, fused to His-tag at C-terminus, was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	Ile35-His343
Description	Glycans are frequently fucosylated at terminal sites. Therefore, fucose is often part of a sugar epitope with important biological function. Well-known fucose-containing glycans include Lewis and ABO blood group antigens. Lewis epitopes are key elements involved in leukocyte homing and the extravasation process, and thus are important for lymphocyte maturation and natural defense functions. Fucose-containing glycans also play critical roles in cell signaling and development. More than 10 fucosyltransferases have been cloned, and most are Golgi-resident type II membrane proteins. FUT3, FUT4, FUT5, FUT6, FUT7, and FUT9 are alpha 1-3 or alpha 1-4 fucosyltransferases and are responsible for Lewis antigen generation. FUT8 is the only alpha 1-6 fucosyltransferase that adds a fucose to the chitobiose core of N-glycans. FUT1 and FUT2 are galactoside alpha 1-2 fucosyltransferases that generate H-antigen, the precursor for ABO blood-group antigen synthesis. In particular, FUT2 involves in generating soluble ABO antigen in saliva; therefore it is also called secretor blood group alpha 1-2 fucosyltransferase. Absence of functional FUT2 is related to Crohn's disease. The

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	activity of this enzyme has been measured with a phosphatase-coupled method.
Form	Supplied as a 0.2 µm filtered solution in Tris, NaCl, DTT and Glycerol.
Bio-activity	Measured by its ability to transfer fucose from GDP-fucose to lactose. The specific activity is >2,500 pmol/min/µg, as measured under the described conditions.
Molecular Mass	Predicted Molecular Mass: 36 kDa SDS-PAGE: 40-50 kDa, reducing conditions
Endotoxin	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain at 5 µg per lane.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -70 centigrade as supplied. 3 months, -70 centigrade under sterile conditions after opening.
Shipping	The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.

GENE INFORMATION

Gene Name	FUT2 fucosyltransferase 2 [Homo sapiens (human)]
Official Symbol	FUT2
Synonyms	SE; Se2; sej; SEC2; B12QTL1; fucosyltransferase 2; alpha (1,2) fucosyltransferase; Alpha(1,2)FT 2; alpha(1,2)FT2; B12QTL1; EC 2.4.1.69; fucosyltransferase 2 (secretor status included); Fucosyltransferase 2; FUT2; galactoside 2-alpha-L-

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fucosyltransferase 2; GDP-L-fucose:beta-D-galactoside 2-alpha-L-fucosyltransferase 2; Se; SEC2SE; Secretor blood group alpha-2-fucosyltransferase; Secretor factor; SEJ

Gene ID [2524](#)

mRNA Refseq [NM_000511.6](#)

Protein Refseq [NP_000502.4](#)

MIM [182100](#)

UniProt ID [Q10981](#)

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