SANTA CRUZ BIOTECHNOLOGY, INC.

# FucT-IV (MY-1): sc-59531


## BACKGROUND

Fucosyltransferases (FucTs) catalyze the covalent association of fucose to different positional linkages on sugar acceptor molecules. The carbohydrate moieties that are generated are covalently attached to cell surfaces and are necessary to ensure a surface contour that satisfies a variety of physiological roles. FucT-IV, α-(1,3)-fucosyltransferase 4), also known as FUT4, FCT3A or ELFT, is a 405 amino acid single-pass type II membrane protein that localizes to Golgi stacks. During embryogenesis, FucT-IV is highly expressed in skin, liver, kidney, muscle and small intestine where it functions to catalyze the glycosidic attachment of α-Fucose to various molecules, such as N-acetyl-lactosamines. Via its catalytic activity, FucT-IV participates in the synthesis of carbohydrate molecules like the cell-adhesion antigen CD15 (also known as Lewis X), thereby playing a role in cell cycle events such as apoptosis and cell-cell binding. Overexpression of FucT-IV is implicated in epithelial cancers, suggesting a possible role for FucT-IV in carcinogenesis.

## REFERENCES

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7. Barry, S.M., Zisoulis, D.G., Neal, J.W., Clipstone, N.A. and Kansas, G.S. 2003. Induction of FucT-VII by the Ras/MAP kinase cascade in Jurkat T cells. Blood 102: 1771-1778.

## CHROMOSOMAL LOCATION

Genetic locus: FUT4 (human) mapping to 11q21.

## SOURCE

FucT-IV (MY-1) is a mouse monoclonal antibody raised against purified neutrophils from peripheral blood of human origin.

## PRODUCT

Each vial contains 500 µl culture supernatant containing IgM with < 0.1% sodium azide.

## APPLICATIONS

FucT-IV (MY-1) is recommended for detection of FucT-IV of human origin by immunofluorescence (starting dilution to be determined by researcher, dilution range 1:10-1:200) and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:10-1:200); also recommended for detection of an antigen located on mature granulocytes and on Hodgkin and Reed Sternberg cells.

Suitable for use as control antibody for FucT-IV siRNA (h): sc-40585, FucT-IV shRNA Plasmid (h): sc-40585-SH and FucT-IV shRNA (h) Lentiviral Particles: sc-40585-V.

Molecular Weight of FucT-IV: 45 kDa.

## STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.