SANTA CRUZ BIOTECHNOLOGY, INC.

# POFUT2 (W-19): sc-74993

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*The Power to Question*

## BACKGROUND

Glycosyltransferases that mediate the regio- and stereoselective transfer of sugars, such as the fucosyltransferases, determine cell surface-carbohydrate profiles, which is an essential interface for biological recognition processes. Fucosyltransferases catalyze the covalent association of fucose to different positional linkages in sugar acceptor molecules. POFUT2 (peptide-O-fucosyltransferase 2), also known as FUT13 or O-FucT-2, is a fucosyltransferase responsible for transferring fucose to serine or threonine residues in properly folded thrombospondin repeats (TSRs) through an O-glycosidic linkage. POFUT2 localizes to the endoplasmic reticulum and exists in three isoforms (designated A, B and C) which exhibit different patterns of expression. In addition, POFUT2 may have chaperone-like activity and function in quality control and protein folding.

## REFERENCES


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3. Martinez-Duncker, I., et al. 2003. A new superfamily of protein-O-fucosyltransferases, α2-fucosyltransferases, and α6-fucosyltransferases: phylogeny and identification of conserved peptide motifs. Glycobiology 13: 1C-5C.
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7. Luo, Y., et al. 2006. Protein O-fucosyltransferase 2 adds O-fucose to thrombospondin type 1 repeats. J. Biol. Chem. 281: 9393-9399.
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## CHROMOSOMAL LOCATION

Genetic locus: POFUT2 (human) mapping to 21q22.3; Pofut2 (mouse) mapping to 10 C1.

## SOURCE

POFUT2 (W-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of POFUT2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-74993 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

OFUT2 (W-19) is recommended for detection of POFUT2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

POFUT2 (W-19) is also recommended for detection of POFUT2 in additional species, including bovine and porcine.

Suitable for use as control antibody for POFUT2 siRNA (h): sc-76186, POFUT2 siRNA (m): sc-76187, POFUT2 shRNA Plasmid (h): sc-76186-SH, POFUT2 shRNA Plasmid (m): sc-76187-SH, POFUT2 shRNA (h) Lentiviral Particles: sc-76186-V and POFUT2 shRNA (m) Lentiviral Particles: sc-76187-V.

Molecular Weight of POFUT2: 50 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

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

## PROTOCOLS

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