SANTA CRUZ BIOTECHNOLOGY, INC.

FTβ (C-20): sc-30781

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mammalian protein farnesyl transferases are heterodimeric proteins containing two nonidentical α and β subunits that attach farnesyl residues to a cysteine at the fourth position from the COOH terminus of several proteins, including nuclear lamins and p21 Ras proteins. The natural substrates contain the Cys-A-A-Xaa recognition sequence, where the A residues are aliphatic and Xaa represents methionine, serine, glutamine or cysteine. The purified farnesyl transferase is an α-β heterodimer. The β subunit binds the peptide substrate while the α subunit is suspected to participate in formation of a stable complex with the substrate farnesyl pyrophosphate. The α subunit is shared with a second prenyl transferase, geranyl-geranyl transferase, that attaches 20 carbon geranylgeranyl to Ras related proteins that terminate in a Cys-A-A-Xaa recognition site in which Xaa is leucine.

REFERENCES

1. Clarke, S., et al. 1988. Posttranslational modification of the Ha-ras oncogene protein: evidence for a third class of protein carboxyl methyltransferases. Proc. Natl. Acad. Sci. USA 85: 4643-4647.
2. Reiss, Y., et al. 1990. Inhibition of purified p21ras farnesyl: protein transferase by Cys-AAX tetrapeptides. Cell 62: 81-88.
3. Reiss, Y., et al. 1991. Nonidentical subunits of p21H-ras farnesyltransferase. J. Biol. Chem. 266: 10672-10677.
4. Moores, S.L., et al. 1991. Sequence dependence of protein isoprenylation. J. Biol. Chem. 266: 14603-14610.
5. Seabra, M.C., et al. 1991. Protein farnesyltransferase and geranylgeranyltransferase share a common α subunit. Cell 65: 429-434.
6. Reiss, Y., et al. 1991. Sequence requirement for peptide recognition by rat brain p21Ras protein farnesyltransferase. Proc. Natl. Acad. Sci. USA 88: 732-736.

CHROMOSOMAL LOCATION

Genetic locus: FNTB (human) mapping to 14q23.3; Fntb (mouse) mapping to 12 C3.

SOURCE

FTβ (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FTβ 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-30781 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

FTβ (C-20) is recommended for detection of FTβ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

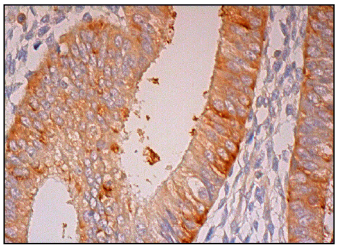
FTβ (C-20) is also recommended for detection of FTβ in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FTβ siRNA (h): sc-35417, FTβ siRNA (m): sc-35418, FTβ shRNA Plasmid (h): sc-35417-SH, FTβ shRNA Plasmid (m): sc-35418-SH, FTβ shRNA (h) Lentiviral Particles: sc-35417-V and FTβ shRNA (m) Lentiviral Particles: sc-35418-V.

Molecular Weight of FTβ: 46 kDa.

Positive Controls: 3611-RF whole cell lysate: sc-2215, NIH/3T3 whole cell lysate: sc-2210 or A-431 whole cell lysate: sc-2201.

DATA



FTβ (C-20): sc-30781. Immunoperoxidase staining of formalin fixed, paraffin-embedded human premenopausal uterus tissue showing cytoplasmic staining of glandular cells.

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.