SANTA CRUZ BIOTECHNOLOGY, INC.

FTα (FL-379): sc-13964

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 p21Ras 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 αβ 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. Post-translational 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-A-A-X tetrapeptides. Cell 62: 81-88.
3. Reiss, Y., et al. 1991. Sequence requirement for peptide recognition by rat brain p21ras protein farnesyltransferase. Proc. Natl. Acad. Sci. USA 88: 732-736.
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. Chen, W.J., et al. 1991. Cloning and expression of a cDNA encoding the α subunit of rat p21ras protein farnesyl-transferase. Proc. Natl. Acad. Sci. USA 88: 11368-11372.

CHROMOSOMAL LOCATION

Genetic locus: FNTA (human) mapping to 8p11.21; Fnta (mouse) mapping to 8 A2.

SOURCE

FTα (FL-379) is a rabbit polyclonal antibody raised against amino acids 1-379 representing full length FTα 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.

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.

APPLICATIONS

FTα (FL-379) is recommended for detection of FTα 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).

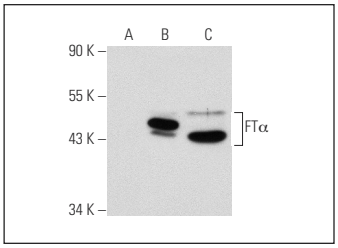
FTα (FL-379) is also recommended for detection of FTα in additional species, including canine and bovine.

Suitable for use as control antibody for FTα siRNA (h): sc-35420, FTα siRNA (m): sc-35419, FTα shRNA Plasmid (h): sc-35420-SH, FTα shRNA Plasmid (m): sc-35419-SH, FTα shRNA (h) Lentiviral Particles: sc-35420-V and FTα shRNA (m) Lentiviral Particles: sc-35419-V.

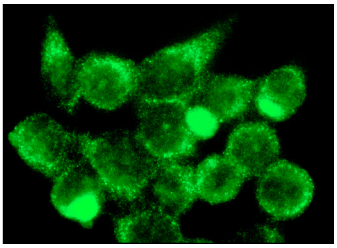
Molecular Weight of FTα: 49 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, Jurkat whole cell lysate: sc-2204 or FTα (h): 293 Lysate: sc-112923.

DATA



FTα (FL-379): sc-13964. Western blot analysis of FTα expression in non-transfected 293: sc-110760 (**A**), human FTα transfected 293: sc-112923 (**B**) and Jurkat (**C**) whole cell lysates.



FTα (FL-379): sc-13964. Immunofluorescence staining of methanol-fixed HeLa cells showing perinuclear localization.

PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **FTα (D-5): sc-374262** or **FTα (IB7): sc-23906**, our highly recommended monoclonal alternatives to FTα (FL-379).