SANTA CRUZ BIOTECHNOLOGY, INC.

SUMF2 (SJ-5): sc-100728

BACKGROUND

Sulfatases are enzymes that remove sulfate residues from a variety of substrates via the hydrolysis of sulfate esters. In order to function properly, sulfatases require the presence of C_α-formylglycine (FGly), a unique amino acid, in their active site. This amino acid is synthesized by enzymes that use a cysteine to posttranslationally generate FGly. SUMF2 (sulfatase-modifying factor 2), also known as pFGE or PSEC0171, is a 301 amino acid protein that belongs to the sulfatase-modifying factor family and is expressed in lung, heart, placenta, brain, liver, pancreas, skeletal muscle and kidney. Localized to the lumen of the endoplasmic reticulum (ER), SUMF2 acts as an FGly-generating enzyme that, when functioning alone, has low catalytic activity. When present in a heterodimer with SUMF1 (another FGly-generating protein), SUMF2 exhibits higher rates of catalysis. Four isoforms of SUMF2 are expressed due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SUMF2 (human) mapping to 7p11.2.

RESEARCH USE

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

SOURCE

SUMF2 (SJ-5) is a mouse monoclonal antibody raised against recombinant SUMF2 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SUMF2 (SJ-5) is recommended for detection of SUMF2 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SUMF2 siRNA (h): sc-89517, SUMF2 shRNA Plasmid (h): sc-89517-SH and SUMF2 shRNA (h) Lentiviral Particles: sc-89517-V.

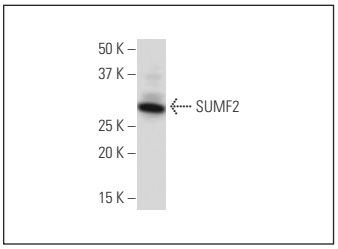
Molecular Weight of SUMF2: 32 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



SUMF2 (SJ-5): sc-100728. Western blot analysis of SUMF2 expression in A-431 whole cell lysate.

STORAGE

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

PROTOCOLS

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