SANTA CRUZ BIOTECHNOLOGY, INC.

MFSD4 (N-12): sc-247966

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The Power to Question

BACKGROUND

The major facilitator superfamily consists of presumed carbohydrate transporters with ten to twelve membrane-spanning domains. MFSD4 (major facilitator superfamily domain containing 4) is a 514 amino acid multi-pass membrane protein that belongs to the major facilitator superfamily and is encoded by a gene that maps to human chromosome 1q32.1. Chromosome 1 spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MFSD4 (human) mapping to 1q32.1; Mfsd4 (mouse) mapping to 1 E4.

SOURCE

MFSD4 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MFSD4 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-247966 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MFSD4 (N-12) is recommended for detection of MFSD4 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); non cross-reactive with other MFSD family members.

MFSD4 (N-12) is also recommended for detection of MFSD4 in additional species, including canine and porcine.

Suitable for use as control antibody for MFSD4 siRNA (h): sc-78962, MFSD4 siRNA (m): sc-149409, MFSD4 shRNA Plasmid (h): sc-78962-SH, MFSD4 shRNA Plasmid (m): sc-149409-SH, MFSD4 shRNA (h) Lentiviral Particles: sc-78962-V and MFSD4 shRNA (m) Lentiviral Particles: sc-149409-V.

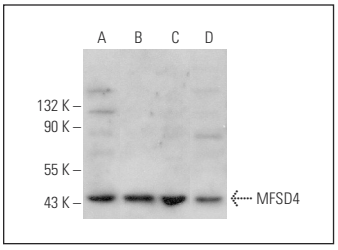
Molecular Weight of MFSD4: 46 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MFSD4 (N-12): sc-247966. Western blot analysis of MFSD4 expression in HeLa (**A**), Jurkat (**B**), K-562 (**C**) and ACHN (**D**) whole cell lysates.

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.