SANTA CRUZ BIOTECHNOLOGY, INC.

FGF-15 (D-9): sc-514647

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Acidic and basic fibroblast growth factors (FGFs) are members of a family of multifunctional polypeptide growth factors that stimulate proliferation of cells of mesenchymal, epithelial and neuroectodermal origin. Like other growth factors, FGFs act by binding and activating specific cell surface receptors. These receptors usually contain an extracellular ligand-binding region containing three immunoglobulin-like domains, a transmembrane domain and a cytoplasmic tyrosine kinase domain. Fibroblast growth factor-15 (FGF-15), a secreted protein expressed mainly in the developing brain, is important for cell division and patterning regulation in specific embryonic brain regions.

CHROMOSOMAL LOCATION

Genetic locus: Fgf15 (mouse) mapping to 7 F5.

SOURCE

FGF-15 (D-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 194-218 near the C-terminus of FGF-15 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FGF-15 (D-9) is available conjugated to agarose (sc-514647 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514647 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514647 PE), fluorescein (sc-514647 FITC), Alexa Fluor® 488 (sc-514647 AF488), Alexa Fluor® 546 (sc-514647 AF546), Alexa Fluor® 594 (sc-514647 AF594) or Alexa Fluor® 647 (sc-514647 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514647 AF680) or Alexa Fluor® 790 (sc-514647 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514647 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

FGF-15 (D-9) is recommended for detection of precursor and mature FGF-15 of mouse origin by Western Blotting (starting dilution 1:100, 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), 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).

Suitable for use as control antibody for FGF-15 siRNA (m): sc-39473, FGF-15 shRNA Plasmid (m): sc-39473-SH and FGF-15 shRNA (m) Lentiviral Particles: sc-39473-V.

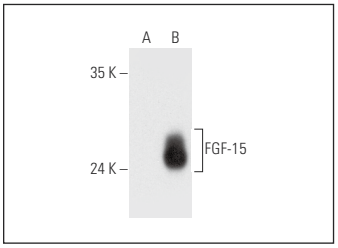
Molecular Weight of FGF-15: 25 kDa.

Positive Controls: FGF-15 (m): 293T Lysate: sc-126850.

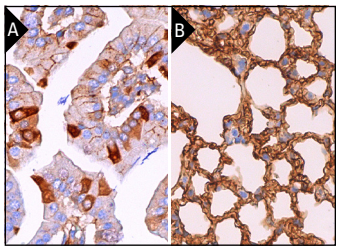
STORAGE

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

DATA



FGF-15 (D-9): sc-514647. Western blot analysis of FGF-15 expression in non-transfected: sc-117752 (**A**) and mouse FGF-15 transfected: sc-126850 (**B**) 293T whole cell lysates.



FGF-15 (D-9): sc-514647. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse embryonic gastrointestinal tract tissue showing membrane and cytoplasmic staining of glandular cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse lung tissue showing membrane and cytoplasmic staining of pneumocytes and macrophages (**B**).

SELECT PRODUCT CITATIONS

1. Wang, F., et al. 2018. Impaired vagus function in rats suppresses bile acid synthesis in the liver by disrupting tight junctions and activating Fxr-FGF15 signaling in the intestine. Biochem. Biophys. Res. Commun. 495: 1490-1496.
2. Wei, J., et al. 2019. *Polygonum multiflorum Thunb* suppress bile acid synthesis by activating Fxr-FGF15 signaling in the intestine. J. Ethnopharmacol. 235: 472-480.
3. Manieri, E., et al. 2020. JNK-mediated disruption of bile acid homeostasis promotes intrahepatic cholangiocarcinoma. Proc. Natl. Acad. Sci. USA 117: 16492-16499.
4. Li, C., et al. 2021. Salvia-Nelumbinis naturalis extract protects mice against MCD diet-induced steatohepatitis via activation of colonic FXR-FGF15 pathway. Biomed. Pharmacother. 139: 111587.
5. Wang, F., et al. 2021. Four citrus flavanones exert atherosclerosis alleviation effects in $apoE^{-/-}$ mice via different metabolic and signaling pathways. J. Agric. Food Chem. 69: 5226-5237.
7. Wang, R., et al. 2022. Inulin activates FXR-FGF15 signaling and further increases bile acids excretion in non-alcoholic fatty liver disease mice. Biochem. Biophys. Res. Commun. 600: 156-162.
8. Chen, T., et al. 2023. Hepatocyte smoothened activity controls susceptibility to Insulin resistance and nonalcoholic fatty liver disease. Cell. Mol. Gastroenterol. Hepatol. 15: 949-970.
9. Sarkar, A., et al. 2023. Intermittent fasting induces rapid hepatocyte proliferation to restore the hepatostat in the mouse liver. Elife 12: e82311.

RESEARCH USE

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