SANTA CRUZ BIOTECHNOLOGY, INC.

FIP1L1 (C-10): sc-398392

BACKGROUND

The component of the cleavage and polyadenylation specificity factor (CPSF) complex plays an important role in the 3'-end formation of pre-mRNA. This complex recognizes the AAUAAA signal sequence and interacts with poly(A) polymerase to process and add to the poly(A) tail. FIP1L1 (FIP1-like 1), also known as pre-mRNA 3'-end-processing factor FIP1, FIP1 (factor interacting with PAP) and RHE (rearranged in hypereosinophilia), is a 594 amino acid nuclear protein that is a component of the CPSF complex. Within the complex, FIP1L1 contributes to the poly(A) recognition and stimulates poly(A) addition. Fusion of the genes encoding FIP1L1 and PDGFRA due to an interstitial deletion on chromosome 4q12 is the cause of hypereosinophilia syndrome, a rare blood disorder characterized by continuous overproduction of eosinophils in the bone marrow that leads to tissue infiltration and organ damage. There are three isoforms of FIP1L1 that are produced as a result of alternative splicing events.

REFERENCES

1. Preker, P.J., et al. 1995. The FIP1 gene encodes a component of a yeast pre-mRNA polyadenylation factor that directly interacts with poly(A) polymerase. Cell 81: 379-389.
2. Cools, J., et al. 2003. A tyrosine kinase created by fusion of the PDGFRA and FIP1L1 genes as a therapeutic target of imatinib in idiopathic hypereosinophilic syndrome. N. Engl. J. Med. 348: 1201-1214.
3. Griffin, J.H., et al. 2003. Discovery of a fusion kinase in EOL-1 cells and idiopathic hypereosinophilic syndrome. Proc. Natl. Acad. Sci. USA 100: 7830-7835.

CHROMOSOMAL LOCATION

Genetic locus: FIP1L1 (human) mapping to 4q12; Fip1l1 (mouse) mapping to 5 C3.3.

SOURCE

FIP1L1 (C-10) is a mouse monoclonal antibody raised against amino acids 46-212 mapping near the N-terminus of FIP1L1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FIP1L1 (C-10) is available conjugated to agarose (sc-398392 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398392 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398392 PE), fluorescein (sc-398392 FITC), Alexa Fluor® 488 (sc-398392 AF488), Alexa Fluor® 546 (sc-398392 AF546), Alexa Fluor® 594 (sc-398392 AF594) or Alexa Fluor® 647 (sc-398392 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398392 AF680) or Alexa Fluor® 790 (sc-398392 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

FIP1L1 (C-10) is recommended for detection of FIP1L1 of mouse, rat and human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

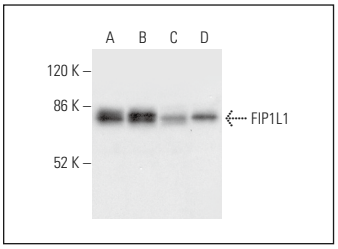
FIP1L1 (C-10) is also recommended for detection of FIP1L1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FIP1L1 siRNA (h): sc-89183, FIP1L1 siRNA (m): sc-145185, FIP1L1 shRNA Plasmid (h): sc-89183-SH, FIP1L1 shRNA Plasmid (m): sc-145185-SH, FIP1L1 shRNA (h) Lentiviral Particles: sc-89183-V and FIP1L1 shRNA (m) Lentiviral Particles: sc-145185-V.

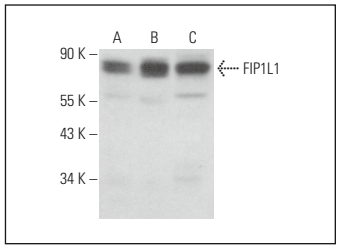
Molecular Weight of FIP1L1: 67 kDa.

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

DATA



FIP1L1 (C-10): sc-398392. Western blot analysis of FIP1L1 expression in Jurkat (**A**), K-562 (**B**), HeLa (**C**) and WiDr (**D**) whole cell lysates.



FIP1L1 (C-10): sc-398392. Western blot analysis of FIP1L1 expression in Jurkat (**A**), HL-60 (**B**) and BYDP (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Mestre-Fos, S., et al. 2019. G-quadruplexes in human ribosomal RNA. J. Mol. Biol. 431: 1940-1955.
2. Ustyantsev, I.G., et al. 2021. Identification of nucleotide sequences and some proteins involved in polyadenylation of RNA transcribed by Pol III from SINEs. RNA Biol. 18: 1475-1488.
3. Liu, H., et al. 2022. Targeting the mRNA endonuclease CPSF73 inhibits breast cancer cell migration, invasion, and self-renewal. iScience 25: 104804.
4. Mukherjee, S., et al. 2023. Macrophage differentiation is marked by increased abundance of the mRNA 3' end processing machinery, altered poly(A) site usage, and sensitivity to the level of CstF64. Front. Immunol. 14: 1091403.

RESEARCH USE

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