FUS/TLS (4H11): sc-47711

BACKGROUND

EWS and FUS/TLS are nuclear RNA-binding proteins. As a result of chromosome translocation, the EWS gene is fused to a variety of transcription factors, including ATF-1, in human neoplasms. In the Ewing family of tumors, the N-terminal domain of EWS is fused to the DNA-binding domain of various Ets transcription factors, including Fli-1, ET1V and FEV. The EWS/Fli-1 chimeric protein acts as a more potent transcriptional activator than Fli-1 and can promote cell transformation. In human myoid liposarcomas and myeloid leukemias, chromosomal translocation results in the fusion of the N-terminal region of FUS/TLS with the open reading frame of CHOP. In normal cells, FUS/TLS binds to the DNA-binding domains of nuclear steroid receptors and is also present in subpopulations of TFIID complexes, indicating a potential role for FUS/TLS in the processing of primary transcripts that are generated in response to hormone-induced transcription.

CHROMOSOMAL LOCATION

Genetic locus: FUS (human) mapping to 16p11.2; Fus (mouse) mapping to 7 F3.

SOURCE

FUS/TLS (4H11) is a mouse monoclonal antibody raised against a fusion protein corresponding to the C-terminus of human TLS.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

FUS/TLS (4H11) is available conjugated to agarose (sc-47711 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-47711 HRP), 200 µg/ml, for WB, IHC, and ELISA; to either phycocerythrin (sc-47711 PE), fluorescein (sc-47711 FITC), Alexa Fluor® 488 (sc-47711 AF488), Alexa Fluor® 546 (sc-47711 AF546), Alexa Fluor® 594 (sc-47711 AF594) or Alexa Fluor® 647 (sc-47711 AF647), 200 µg/ml, for WB (RGB), IF, IHC, and FCM; and to either Alexa Fluor® 680 (sc-47711 AF680) or Alexa Fluor® 790 (sc-47711 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF, and FCM.

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APPLICATIONS

FUS/TLS (4H11) is recommended for detection of FUS/TLS 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), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of FUS/TLS: 75 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, SJRH30 cell lysate: sc-2287 or NIH/3T3 nuclear extract: sc-2138.

STORAGE

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

DATA

Selecting a suitable antibody and secondary reagent is crucial for the success of any immunohistochemical (IHC) staining experiment. The choice of antibody and secondary reagent depends on the specific experimental requirements and the desired outcomes. In this protocol, we recommend the use of FUS/TLS (4H11) antibody (sc-47711) for the detection of FUS/TLS protein. This antibody is known to be specific and sensitive for FUS/TLS, making it an ideal choice for IHC applications.

SELECT PRODUCT CITATIONS