abcam

Product datasheet

Anti-TLS/FUS antibody ab23439

★★★★★ <u>5 Abreviews</u> <u>27 References</u> 3 Images

Overview

Product name Anti-TLS/FUS antibody

Description Rabbit polyclonal to TLS/FUS

Host species Rabbit

Tested applications Suitable for: IP, WB

Species reactivity Reacts with: Mouse, Human

Predicted to work with: Rat, Dog, Non human primates

Immunogen Synthetic peptide conjugated to KLH derived from within residues 250 - 350 of Human TLS/FUS.

Read Abcam's proprietary immunogen policy (Peptide available as <u>ab31610</u>.)

General notesThe Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising

agent. If you would like information about the formulation of a specific lot, please contact our

scientific support team who will be happy to help.

Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

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Applications

The Abpromise guarantee

Our Abpromise guarantee covers the use of ab23439 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|-------------|------------------|--|
| IP | *** <u>*</u> (1) | Use at an assay dependent concentration. |
| WB | ★★★★★ (4) | Use a concentration of 1 - 5 μg/ml. Detects a band of approximately 75 kDa (predicted molecular weight: 75 kDa). |

| Target |
|--------|
|--------|

Function

Binds both single-stranded and double-stranded DNA and promotes ATP-independent annealing of complementary single-stranded DNAs and D-loop formation in superhelical double-stranded DNA. May play a role in maintenance of genomic integrity.

Tissue specificity

Involvement in disease

Ubiquitous.

Note=A chromosomal aberration involving FUS is found in a patient with malignant myxoid liposarcoma. Translocation t(12;16)(q13;p11) with DDIT3.

Note=A chromosomal aberration involving FUS is a cause of acute myeloid leukemia (AML). Translocation t(16:21)(p11:q22) with ERG.

Defects in FUS may be a cause of angiomatoid fibrous histiocytoma (AFH) [MIM:612160]. A distinct variant of malignant fibrous histiocytoma that typically occurs in children and adolescents and is manifest by nodular subcutaneous growth. Characteristic microscopic features include lobulated sheets of histiocyte-like cells intimately associated with areas of hemorrhage and cystic pseudovascular spaces, as well as a striking cuffing of inflammatory cells, mimicking a lymph node metastasis. Note=A chromosomal aberration involving FUS is found in a patient with angiomatoid fibrous histiocytoma. Translocation t(12;16)(q13;p11.2) with ATF1 generates a chimeric FUS/ATF1 protein.

Defects in FUS are the cause of amyotrophic lateral sclerosis type 6 (ALS6) [MIM:608030]. ALS6 is a familial form of amyotrophic lateral sclerosis. ALS is a neurodegenerative disorder affecting upper motor neurons in the brain and lower motor neurons in the brain stem and spinal cord, resulting in fatal paralysis. Sensory abnormalities are absent. Death usually occurs within 2 to 5 years. The etiology of amyotrophic lateral sclerosis is likely to be multifactorial, involving both genetic and environmental factors. The disease is inherited in 5-10%.

Sequence similarities

Belongs to the RRM TET family.

Contains 1 RanBP2-type zinc finger.

Contains 1 RRM (RNA recognition motif) domain.

Post-translational

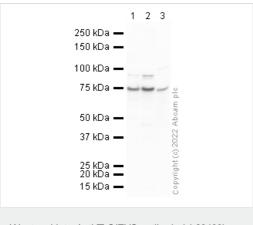
Cellular localization

modifications

Nucleus.

Arg-216 and Arg-218 are dimethylated, probably to asymmetric dimethylarginine.

Images



Western blot - Anti-TLS/FUS antibody (ab23439)

All lanes: Anti-TLS/FUS antibody (ab23439) at 1 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Nuclear Lysate

Lane 2 : Jurkat (Human T cell leukaemia cell line from peripheral blood) Nuclear lysate

Lane 3 : NIH 3T3 (Mouse embryo fibroblast cell line) Whole Cell Lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat polyclonal to Rabbit $\lg G$ - H&L - Pre-Adsorbed (HRP) at 50000 μg

Predicted band size: 75 kDa **Observed band size:** 75 kDa

Exposure time: 2 minutes

Gel type: MOPS

Blocking buffer: 2% BSA block

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All lanes : Anti-TLS/FUS antibody (ab23439) at 1 μg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Nuclear Lysate

Lane 2 : Jurkat nuclear extract lysate (ab14844)

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

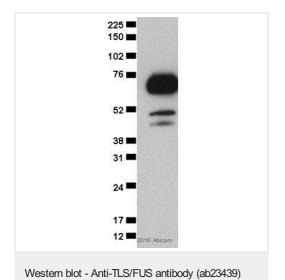
Predicted band size: 75 kDa **Observed band size:** 75 kDa



Western blot - Anti-TLS/FUS antibody (ab23439)

Exposure time: 8 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 5% Bovine Serum Albumin before being incubated with ab23439 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution.



This image is courtesy of an anonymous Abreview

Anti-TLS/FUS antibody (ab23439) at 1/1000 dilution + Human 293T cell - whole cell lysate at 30000 cells

Secondary

An HRP Goat polyclonal to Rabbit IgG at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 75 kDa
Observed band size: 72 kDa

Additional bands at: 45 kDa (possible non-specific binding), 50

kDa (possible non-specific binding)

Blocking Step: 5% Milk; 1% BSA for 16 hours at 4°C

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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