SANTA CRUZ BIOTECHNOLOGY, INC.

EWS (C-19): sc-6532

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

EWS is a nuclear RNA-binding protein. As a result of chromosome translocation, the EWS gene is fused to a variety of transcription factors, including ATF-1, in human neoplasias. 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, Erg, ETV1, E1AF and FEV. The EWS/Fli-1 chimeric protein acts as a more potent transcriptional activator than Fli-1 and can promote cell transformation. Two functional regions have been identified in EWS. An amino terminal region (domain A) has little transactivation activity, but transforms efficiently when fused to Fli-1. A distal region (domain B) shows transactivation activity, but transforms less efficiently when fused to Fli-1.

CHROMOSOMAL LOCATION

Genetic locus: EWSR1 (human) mapping to 22q12.2; Ewsr1 (mouse) mapping to 11 A1.

SOURCE

EWS (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of EWS 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-6532 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

EWS (C-19) is recommended for detection of EWS 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), 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).

EWS (C-19) is also recommended for detection of EWS in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for EWS siRNA (h): sc-35347, EWS siRNA (m): sc-35348, EWS shRNA Plasmid (h): sc-35347-SH, EWS shRNA Plasmid (m): sc-35348-SH, EWS shRNA (h) Lentiviral Particles: sc-35347-V and EWS shRNA (m) Lentiviral Particles: sc-35348-V.

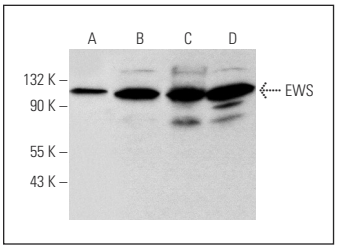
Molecular Weight of EWS: 90 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, mouse testis extract: sc-2405 or HeLa nuclear extract: sc-2120.

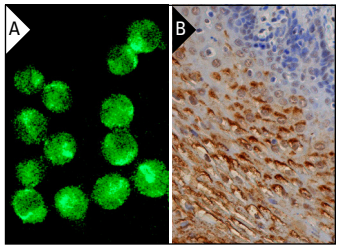
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



EWS (C-19): sc-6532. Western blot analysis of EWS expression in HeLa (**A**), Jurkat (**B**) and K-562 (**C**) nuclear extracts and mouse testis extract (**D**).



EWS (C-19): sc-6532. Immunofluorescence staining of methanol-fixed K-562 cells showing nuclear staining (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic and nuclear staining of squamous epithelial cells (**B**).

SELECT PRODUCT CITATIONS

1. Rossow, K.L., et al. 2001. The Ewing's sarcoma gene product functions as a transcriptional activator. Cancer Res. 61: 2690-2695.
2. Liu, Q., et al. 2001. Nasal CD56 positive small round cell tumors. Differential diagnosis of hematological, neurogenic, and myogenic neoplasms. Virchows Arch. 438: 271-279.
3. Lee, J., et al. 2005. Stimulation of Oct-4 activity by Ewing's sarcoma protein. Stem Cells 23: 738-751.
4. Anumanthan, G., et al. 2006. Oncogenic serine-threonine kinase receptor-associated protein modulates the function of Ewing sarcoma protein through a novel mechanism. Cancer Res. 66: 10824-10832.
5. Wang, X., et al. 2008. Induced ncRNAs allosterically modify RNA-binding proteins in cis to inhibit transcription. Nature 454: 126-130.
6. Doi, H., et al. 2008. RNA-binding protein TLS is a major nuclear aggregate-interacting protein in Huntingtin exon 1 with expanded polyglutamine-expressing cells. J. Biol. Chem. 283: 6489-6500.

RESEARCH USE

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