

EWS (B-1): sc-398318

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), that has little transactivation activity but transforms efficiently when fused to Fli-1, and a distal region (domain B), which shows transactivation activity but transforms less efficiently when fused to Fli-1.

REFERENCES

1. Delattre, O., et al. 1992. Gene fusion with an ETS DNA-binding domain caused by chromosome translocation in human tumours. *Nature* 359: 162-165.
2. May, W.A., et al. 1993. The Ewing's sarcoma EWS/Fli-1 fusion gene encodes a more potent transcriptional activator and is a more powerful transforming gene than Fli-1. *Mol. Cell. Biol.* 13: 7393-7398.

CHROMOSOMAL LOCATION

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

SOURCE

EWS (B-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 628-656 at the C-terminus of EWS of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-398245 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

EWS (B-1) is recommended for detection of EWS 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). EWS (B-1) is also recommended for detection of EWS in additional species, including canine, bovine and porcine.

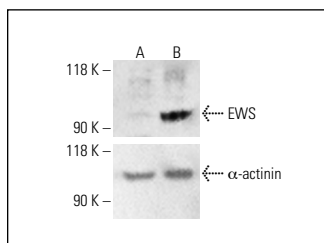
Suitable for use as control antibody for EWS siRNA (h): sc-35347, EWS siRNA (m): sc-35348, EWS shRNA Plasmid (h): sc-35347-SH, EWS shRNA Plasmid (m): sc-35348-SH, EWS shRNA (h) Lentiviral Particles: sc-35347-V and EWS shRNA (m) Lentiviral Particles: sc-35348-V.

Molecular Weight of EWS: 90 kDa.

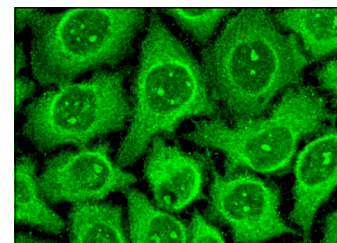
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



EWS (B-1): sc-398318. Western blot analysis of EWS expression in untreated HeLa (A) and PMA-treated HeLa (B) whole cell lysates. Detection reagent used: m-IgG_{2b} BP-HRP: sc-542741. α-actinin (H-2): sc-17829 used as loading control. Detection reagent used: m-IgG₁ BP-HRP: sc-525408.



EWS (B-1): sc-398318. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear, cytoplasmic, membrane and nucleolar localization.

SELECT PRODUCT CITATIONS

1. Virgen-Slane, R., et al. 2020. Cutting edge: the RNA-binding protein ewing sarcoma is a novel modulator of lymphotoxin β receptor signaling. *J. Immunol.* 204: 1085-1090.
2. Ahmed, N.S., et al. 2021. Fusion protein EWS-FLI1 is incorporated into a protein granule in cells. *RNA* 27: 920-932.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.



See **EWS (G-5): sc-28327** for EWS antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.