Product name:	EWS Rabbit Polyclonal Antibody
Cat number:	ABN10653
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human EWSR1. AA range:403-452
Reactivity:	Human,Mouse,Rat
Applications:	WB 1:500-1:2000,ELISA 1:5000-1:20000
Molecular Weight:	68kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

This gene encodes a multifunctional protein that is involved in various cellular processes, including gene expression, cell signaling, and RNA processing and transport. The protein includes an N-terminal transcriptional activation domain and a C-terminal RNA-binding domain. Chromosomal translocations between this gene and various genes encoding transcription factors result in the production of chimeric proteins that are involved in tumorigenesis. These chimeric proteins usually consist of the N-terminal transcriptional activation domain of this protein fused to the C-terminal DNA-binding domain of the transcription factor protein. Mutations in this gene, specifically a t(11;22)(q24;q12) translocation, are known to cause Ewing sarcoma as well as neuroectodermal and various other tumors. Alternative splicing of this gene results in multiple transcript variants. Related pseudogenes have been iddisease:A chromosomal aberration involving EWSR1 is associated with desmoplastic small round cell tumor (DSRCT). Translocation t(11;22)(p13;q12) with WT1.,disease:A chromosomal aberration involving EWSR1 is associated with malignant melanoma of soft parts (MMSP). Translocation t(12;22)(q13;q12) with ATF-1. Malignant melanoma of soft parts, also known as soft tissue clear cell sarcoma, is a rare tumor developing in tendons and aponeuroses.,disease:A chromosomal aberration involving EWSR1 is associated with small round cell sarcoma. Translocation t(11;22)(p36.1;q12) with PATZ1.,disease:Chromosomal aberrations involving EWSR1 are a cause of Ewing sarcoma [MIM:133450]. Translocation t(11;22)(q24;q12) with FLI1; translocation t(7;22)(p22;q12) with ETV1; translocation t(21;22)(q22;q12) with ERG; translocation t(9;22)(q22-31;q11-12) with NR4A3. Translocation t(2;21;22)(q23;q22;q12) that forms a EWSR1-FEV fusion protein with potential oncogenic activity.,disease:Chromosomal aberrations involving EWSR1 are associated with angiomatoid fibrous histiocytoma (AFH) [MIM:612160]. Translocation t(12;22)(q13;q12) with ATF1 generates a chimeric EWSR1/ATF1 protein. Translocation t(2;22)(q33;q12) with CREB1 generates a EWSR1/CREB1 fusion gene that is most common genetic abnormality in this tumor type.,domain:EWS activation domain (EAD) functions as a potent activation domain in EFPS. EWSR1 binds POLR2C but not POLR2E or POLR2G, whereas the isolated EAD binds POLR2E and POLR2G but not POLR2C. Cis-linked RNA-binding domain (RBD) can strongly and specifically repress trans-activation by the EAD.,function:Might normally function as a repressor. EWS-fusion-proteins (EFPS) may play a role in the tumorigenic process. They may disturb gene expression by mimicking, or interfering with the normal function of CTD-POLII within the transcription initiation complex. They may also contribute to an aberrant activation of the fusion protein target genes.,miscellaneous:Binds calmodulin in the presence, but not in the absence, of calcium ion.,miscellaneous:EFPS arise due to chromosomal translocations in which EWSR1 is fused to a variety of cellular transcription factors. EFPS are very potent transcriptional activators dependent on the EAD and a C-terminal DNA-binding domain contributed by the fusion partner. The spectrum of malignancies associated with EFPS are thought to arise via EFP-induced transcriptional deregulation, with the tumor phenotype specified by the EWSR1 fusion partner and cell type. Transcriptional repression of the transforming growth factor beta type II receptor (TGF beta RII) is an important target of the EWS-FLI1, EWS-ERG, or EWS-ETV1 oncogene.,PTM:Highly methyalted on arginine residues. Methylation is mediated by PRMT1 and, at lower level by PRMT8.,PTM:Phosphorylated; calmodulin-binding inhibits phosphorylation of Ser-266.,similarity:Belongs to the ETS family.,similarity:Belongs to the RRM TET family.,similarity:Contains 1 ETS DNA-binding domain.,similarity:Contains 1 IQ domain.,similarity:Contains 1 RanBP2-type zinc finger.,similarity:Contains 1 RRM (RNA recognition motif) domain.,subcellular location:Relocates from cytoplasm to ribosomes upon PTK2B/FAK2 activation.,subunit:Binds POLR2C, SF1, calmodulin and RNA. Interacts with PTK2B/FAK2 and TDRD3.,tissue specificity:Ubiquitous.,