NEUROMICS

EWSR1 Data Sheet

Catalog Number:	MO22168	**Host:**	Mouse
Product Type:	Mouse Monoclonal IgG	**Species Reactivity:**	Human, Dog, Rat, Mouse, and Horse
Immunogen Sequence:	Full length human EWS expressed in and purified from *E. coli.*	**Format:**	Purified liquid antibody in PBS, 50% glycerol plus 5mM of Sodium Azide. Concentration: 1mg/ml.
Applications:	Immunofluorescent: 1:1,000 Immunocytochemistry: 1:1,000 Immunohistochemistry: 1:1,000 Western Blot: 1:1,000-2,000		
	Dilutions listed as a recommendation. Optimal dilution should be determined by investigator.		
Storage:	Antibody can also be aliquotted and stored frozen at -20° C in a manual defrost freezer for six months without detectable loss of activity. The antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Avoid repeated freeze-thaw cycles.		

Application Notes

Description/Data:
The Ewing sarcoma breakpoint region 1 gene *EWSR1*, was discovered as the name suggests as it is located at the breakpoint on human chromosome 22 which may becomes fused to segments of other chromosomes following chromoplexy, a burst of complex chromosomal rearrangement seen in cancer cells. The genetic rearrangement produces a set of aberrant genes consisting of the 5′ of the *EWSR1* gene fused to gene segments of several different transcriptional regulator proteins. The normal *EWSR1* gene encodes a protein, EWS RNA binding protein 1, containing an N-terminal transactivation domain followed by a single RRM domain and a single Zinc Finger domain of the ZnF_RBZ type. Chromoplexy results in the production of aberrant genes encoding the N-terminal EWS transactivation domain fused to DNA binding segments of various transcription factors, resulting in strong activation of transcription. EWS is an abundant, ubiquitous and multifunctional protein involved in regulating gene expression, cell division, RNA processing and transport. EWS is localized primarily in the nucleus of cells, but has also been found in the cytoplasm, and associated with the plasma membrane in a fashion regulated by the protein kinase PYK2.

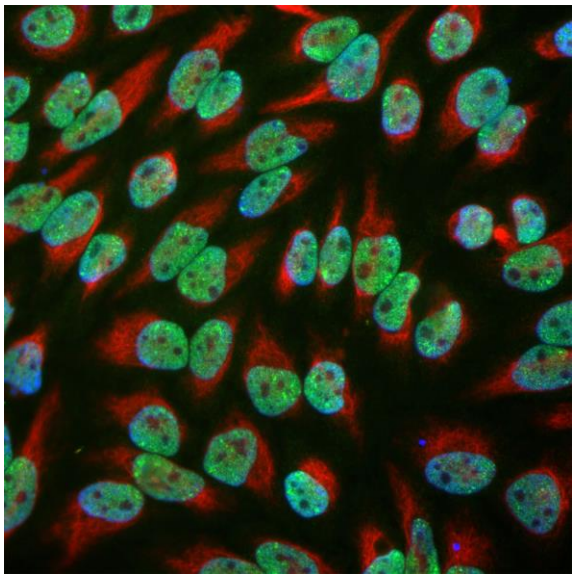

Image: An image of a HeLa cell cultures stained with antibody MO22168 (green) to EWS and counterstained with chicken antibody to vimentin (red). Blue is the Hoechst DNA stain. The EWS protein is clearly localized along with the DNA in the nucleus.

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