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C17ORF53 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO2275a

Product Information

Application	WB, FC, ICC, E
Primary Accession	Q8N3J3
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	7A3A9
Isotype	IgG2b
Calculated MW	69771
Description	C17orf53 (chromosome 17 open reading frame 53) is a 647 amino acid protein that is encoded by a gene mapping to human chromosome 17. Chromosome 17 makes up over 2.5% of the human genome with about 81 million bases encoding over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes. Chromosome 17 is also linked to neurofibromatosis, a condition characterized by neural and epidermal lesions, and dysregulated Schwann cell growth. Alexander disease, Birt-Hogg-Dube syndrome and Canavan disease are also associated with chromosome 17.
Immunogen	Purified recombinant fragment of human C17ORF53 (AA: 282-527) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	78995
Other Names	Uncharacterized protein C17orf53, C17orf53
Dilution	WB~~1/500 - 1/2000 FC~~1/200 - 1/400 ICC~~N/A E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	C17ORF53 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HROB (HGNC:28460)
Synonyms	C17orf53
Function	DNA-binding protein involved in homologous recombination that acts by recruiting the MCM8-MCM9 helicase complex to sites of DNA damage to promote DNA repair synthesis (PubMed:31467087). A C-terminal region including the OB-fold stimulates the helicase activity of MCM8- MCM9 probably by altering its conformation (PubMed:37535404).
Cellular Location	Nucleus. Chromosome. Note=Localized to the sites of DNA damage.

References

1.Nat Genet. 2009 Jan;41(1):15-7.

Images

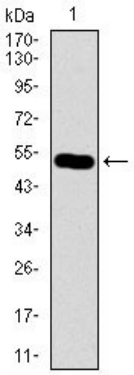

Figure 1: Western blot analysis using C17ORF53 mAb against human C17ORF53 recombinant protein. (Expected MW is 51.9 kDa)

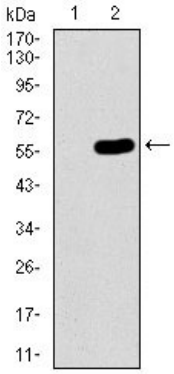

Figure 2: Western blot analysis using C17ORF53 mAb against HEK293 (1) and C17ORF53 (AA: 282-527)-hIgGFc transfected HEK293 (2) cell lysate.

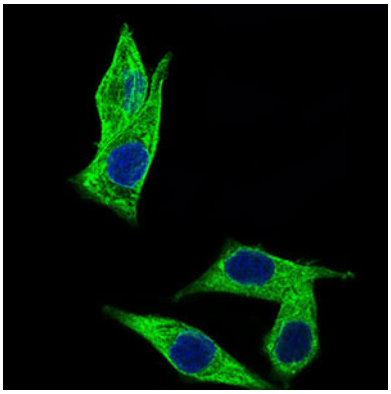

Figure 3: Immunofluorescence analysis of HepG2 cells using C17ORF53 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

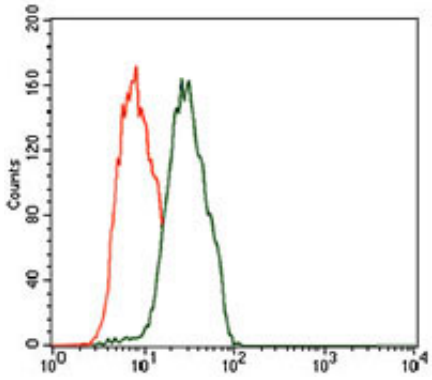

Figure 4: Flow cytometric analysis of Jurkat cells using C17ORF53 mouse mAb (green) and negative control (red).