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PAX5 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1745a

Product Information

Application	WB, IHC, E
Primary Accession	Q02548
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	7D3
Isotype	IgG1
Calculated MW	42149
Description	This gene encodes a member of the paired box (PAX) family of transcription factors. The central feature of this gene family is a novel, highly conserved DNA-binding motif, known as the paired box. PAX proteins are important regulators in early development, and alterations in the expression of their genes are thought to contribute to neoplastic transformation. This gene encodes the B-cell lineage specific activator protein that is expressed at early, but not late stages of B-cell differentiation. Its expression has also been detected in developing CNS and testis and so the encoded protein may also play a role in neural development and spermatogenesis. This gene is located at 9p13, which is involved in t(9;14)(p13;q32) translocations recurring in small lymphocytic lymphomas of the plasmacytoid subtype, and in derived large-cell lymphomas. This translocation brings the potent E-mu enhancer of the IgH gene into close proximity of the PAX5 promoter, suggesting that the deregulation of transcription of this gene contributes to the pathogenesis of these lymphomas. Alternatively spliced transcript variants encoding different isoforms have been described but their biological validity has not been determined.
Immunogen	Purified recombinant fragment of human PAX5 (AA: 235-382) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	5079
Other Names	Paired box protein Pax-5, B-cell-specific transcription factor, BSAP, PAX5
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 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	PAX5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PAX5
Function	Transcription factor that plays an essential role in commitment of lymphoid progenitors to the B-lymphocyte lineage (PubMed:10811620, PubMed:27181361). Fulfills a dual role by repressing B-lineage inappropriate genes and simultaneously activating B-lineage- specific genes (PubMed:10811620, PubMed:27181361). In turn, regulates cell adhesion and migration, induces V(H)-to-D(H)J(H) recombination, facilitates pre-B-cell receptor signaling and promotes development to the mature B-cell stage (PubMed:32612238). Repression of the cohesin- release factor WAPL causes global changes of the chromosomal architecture in pro-B cells to facilitate the generation of a diverse antibody repertoire (PubMed:32612238).
Cellular Location	Nucleus.

References

1.Cancer Res. 2011 Dec 15;71(24):7345-50.2.Am J Clin Pathol. 2010 Jan;133(1):41-8.

Images

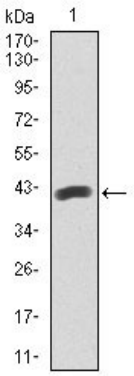


Figure 1: Western blot analysis using PAX5 mAb against human PAX5 recombinant protein. (Expected MW is 41.2 kDa)

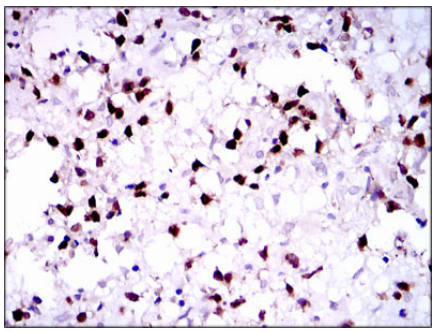
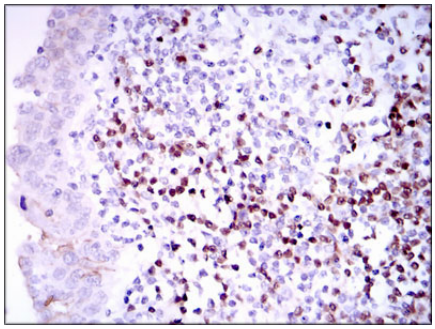


Figure 2: Immunohistochemical analysis of paraffin-embedded brain tumors tissues using PAX5 mouse mAb with DAB staining.

Figure 3: Immunohistochemical analysis of paraffin-embedded endometrial cancer tissues using PAX5 mouse mAb with DAB staining.



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