



Qty: 100 µg/200 µL

Mouse anti-Pax5

Catalog No. 39-6800

Lot No.

Mouse anti-Pax5

FORM

This monoclonal antibody is supplied as a 200 µL aliquot at a concentration of 0.5 mg/mL in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: ZP007

ISOTYPE: Mouse IgG₁.kappa

IMMUNOGEN

Recombinant protein derived from the internal region of the human Pax5 protein, which shares 99% homology with mouse

SPECIFICITY

This antibody is specific for the Pax5 (paired box homeotic gene 5, B cell lineage specific activator protein, BSAP) protein. On Western blots, it identifies the target band at ~50 kDa.

REACTIVITY

Reactivity has been confirmed with Raji cell lysates by Western blotting, and with paraffin-embedded human tonsil tissue by immunohistochemistry. Based on sequence homology, reactivity with mouse may be observed.

Sample	ELISA	Immuno-histochemistry (paraffin)*	Western Blotting
Human	ND	+++	+++
Mouse	ND	ND	ND
Rat	ND	ND	ND
Immunogen	+++	N/A	N/A

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

ELISA: 0.1 – 1.0 µg/mL
Western Blotting: 1 µg/mL
Immunohistochemistry*: 3 – 5 µg/mL

*For paraffin-embedded tissues, heat induced epitope retrieval with citrate buffer, pH 6.0 followed by incubation with primary antibody overnight at 4°C, is required. For IHC in formalin-fixed, paraffin-embedded human tissues, Cat. No. 18-0472 is recommended.

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

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PI396800

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BACKGROUND

The paired box homeotic gene 5 (Pax5), also known as B-cell lineage specific activator protein (BSAP) is a member of the paired box (Pax) family of transcription factors¹. The central feature of the 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. The Pax5 gene encodes the B-cell lineage specific activator protein that is expressed at early but not late stages of B-cell differentiation². Pax5 plays a dual role in early B-cell development by functioning as both an activator and repressor of gene transcription because it positively controls C19, mb-1, N-myc and Lef-1 expression while negatively controlling PD-1 transcription. Pax5 expression has been detected in the developing CNS in the mesencephalon and spinal cord, in tissues during embryogenesis, and in adult testis. Distinct Pax5 isoforms generated by alternative splicing have been described in murine neural, B-lymphoid and testicular tissue³.

REFERENCES

1. Adams B, et al. *Genes Dev* 6:1589-1607, 1992.
2. Nutt SL, et al. *Int Rev Immunol* 20:65-82, 2001.
3. Busslinger M, et al. *Curr Opin Genet Dev* 5:595-601, 1995.

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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