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**Product Name: E2A Rabbit Polyclonal Antibody****Catalog #: APRab10250**

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	IHC,ICC/IF,ELISA
<b>Reactivity</b>	Human,Mouse,Rat
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

**Application**

**Dilution Ratio** IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:5000-1:10000

**Molecular Weight**

**Antigen Information**

<b>Gene Name</b>	TCF3 TCF3; BHLHB21; E2A; ITF1; Transcription factor E2-alpha; Class B basic helix-loop-helix
<b>Alternative Names</b>	protein 21; bHLHb21; Immunoglobulin enhancer-binding factor E12/E47; Immunoglobulin transcription factor 1; Kappa-E2-binding factor; Transcription facto
<b>Gene ID</b>	6929.0
<b>SwissProt ID</b>	P15923
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human E2A. AA range:321-370

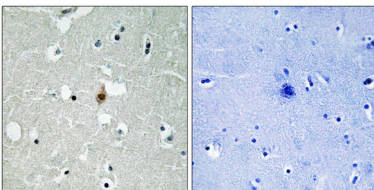
## Background

This gene encodes a member of the E protein (class I) family of helix-loop-helix transcription factors. E proteins activate transcription by binding to regulatory E-box sequences on target genes as heterodimers or homodimers, and are inhibited by heterodimerization with inhibitor of DNA-binding (class IV) helix-loop-helix proteins. E proteins play a critical role in lymphopoiesis, and the encoded protein is required for B and T lymphocyte development. Deletion of this gene or diminished activity of the encoded protein may play a role in lymphoid malignancies. This gene is also involved in several chromosomal translocations that are associated with lymphoid malignancies including pre-B-cell acute lymphoblastic leukemia (t(1;19), with PBX1), childhood leukemia (t(19;19), with TFPT) and acute leukemia (t(12;19), with ZNF384). Alternatively spliced transcript variants encoding multiple isoforms have been identified. Chromosomal aberrations involving TCF3 are cause of forms of pre-B-cell acute lymphoblastic leukemia (B-ALL). Translocation t(1;19)(q23;p13.3) with PBX1; Translocation t(17;19)(q22;p13.3) with HLF. Inversion inv(19)(p13;q13) with TFPT. function: Heterodimers between TCF3 and tissue-specific basic helix-loop-helix (bHLH) proteins play major roles in determining tissue-specific cell fate during embryogenesis, like muscle or early B-cell differentiation. Dimers bind DNA on E-box motifs: 5'-CANNTG-3'. Binds to the kappa-E2 site in the kappa immunoglobulin gene enhancer. PTM: Phosphorylated following NGF stimulation. similarity: Contains 1 basic helix-loop-helix (bHLH) domain. subunit: Efficient DNA binding requires dimerization with another bHLH protein. Forms a heterodimer with ASH1 and TWIST2. Isoform E12 interacts with GRIPE and FIGLA (By similarity). Interacts with PTF1A and TGFB11. Component of a nuclear TAL-1 complex composed at least of CBFA2T3, LDB1, TAL1 and TCF3 (By similarity). Interacts with UBE2L.

## Research Area

Stem cell pathway; WNT; WNT-T CELL;  $\beta$ -Catenin; Protein\_Acetylation

## Image Data



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using E2A Antibody. The picture on the right is blocked with the synthesized peptide.