

E2A Monoclonal Antibody

Catalog No: YM0204

Reactivity: Human

Applications: WB;FCM;ELISA

Target: E2A

Fields: >>Signaling pathways regulating pluripotency of stem cells;>>Human T-cell

leukemia virus 1 infection;>>Transcriptional misregulation in cancer

Gene Name: TCF3

Protein Name: Transcription factor E2-alpha

P15806

Human Gene Id: 6929

Human Swiss Prot P15923

No:

Mouse Swiss Prot

No:

Immunogen: Purified recombinant fragment of human E2A expressed in E. Coli.

Specificity: E2A Monoclonal Antibody detects endogenous levels of E2A protein.

Formulation : Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Monoclonal, Mouse

Dilution: WB 1:500 - 1:2000. Flow cytometry: 1:200 - 1:400. ELISA: 1:10000. Not yet

tested in other applications.

Purification : Affinity purification

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight: 68kD

1/3



Cell Pathway : Stem cell pathway; WNT;WNT-T CELL;β-Catenin; Protein_Acetylation

P References : 1.J Biol Chem. 2000 Oct 27;275(43):33567-73.

2.Mol Cell Biol. 2001 Mar;21(5):1866-73.

3.J Biol Chem. 2003 Jan 24;278(4):2370-6. Epub 2002 Nov 14.

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 bee

Function: disease: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

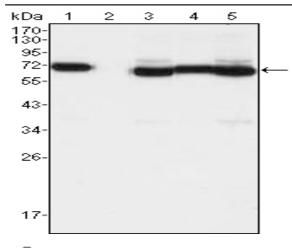
GRIPE and FIGLA (By similarity). Interacts with PTF1A and TGFB1I1.

Subcellular Location:

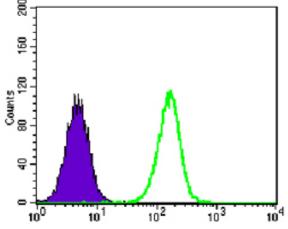
Nucleus.

Expression: Lymphoma, Muscle, PCR rescued clones,

Products Images



Western Blot analysis using E2A Monoclonal Antibody against A549 (1), A431 (2), HeLa (3), PANC-1 (4) and PC-3 (5) cell lysate.



Flow cytometric analysis of A549 cells using E2A Monoclonal Antibody (green) and negative control (purple).