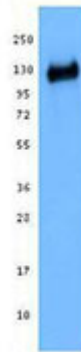


Monoclonal Antibody to Bcl-11B - Purified

Alternate names:	B-cell CLL/lymphoma 11B, B-cell lymphoma/leukemia 11B, BCL11B, COUP-TF-interacting protein 2, CTIP2, RIT1, Radiation-induced tumor suppressor gene 1 protein
Catalog No.:	AM33088PU-N
Quantity:	0.1 mg
Concentration:	0.5 mg/ml
Background:	<p>The transcription factor Bcl11b is expressed in thymus, mainly T cells. It is indispensable for T lineage development. When Bcl11b was deleted, T cells from all developmental stages acquired NK cell properties and concomitantly lost or decreased T cell-associated gene expression. These induced T-to-natural killer (ITNK) cells, which were morphologically and genetically similar to conventional NK cells, killed tumor cells <i>in vitro</i>, and effectively prevented tumor metastasis <i>in vivo</i>. Therefore, ITNKs may represent a new cell source for cell-based therapies.</p> <p>Structure: 894 amino acids with molecular weight of 96 kD. It encodes a C2H2-type zinc finger protein and is closely related to BCL11A.</p> <p>Distribution: Nucleus.</p> <p>Function: Tumor-suppressor protein involved in T-cell lymphomas. A key regulator of both differentiation and survival during thymocyte development.</p> <p>Interaction: Interacts with TFCOUP1, SIRT1, ARP1, and EAR2.</p>
Uniprot ID:	Q9C0K0
NCBI:	NP_075049.1
GeneID:	64919
Host / Isotype:	Rat / IgG
Clone:	25B6
Immunogen:	Human Bcl11b.
Format:	<p>State: Liquid purified IgG fraction</p> <p>Purification: Affinity Chromatography on Protein G</p> <p>Buffer System: Hepes-buffered solution, pH 7.5</p> <p>Preservatives: 0.02% Sodium Azide</p>
Applications:	<p>Western blot: Each lot of this antibody is quality control tested. Use 0.5 µg/ml antibody dilution buffer for each mini-gel.</p> <p>Immunofluorescence: Use a dilution of 1/200.</p> <p>CHIP.</p> <p>Immunohistochemistry.</p> <p>See also Application References 1-3.</p> <p>Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.</p>

- Specificity:** This 25B6 monoclonal antibody recognizes Human, Mouse and Zebrafish Bcl-11B.
- Storage:** Store undiluted at 2-8°C.
DO NOT FREEZE!
Shelf life: one year from despatch.
- General Readings:**
1. Tomassy GS, De Leonibus E, Jabaudon D, Lodato S, Alfano C, Mele A, et al. Area-specific temporal control of corticospinal motor neuron differentiation by COUP-TFI. *Proc Natl Acad Sci U S A*. 2010 Feb 23;107(8):3576-81. doi: 10.1073/pnas.0911792107. Epub 2010 Feb 2. PubMed PMID: 20133588.
 2. Cherrier T, Suzanne S, Redel L, Calao M, Marban C, Samah B, et al. p21(WAF1) gene promoter is epigenetically silenced by CTIP2 and SUV39H1. *Oncogene*. 2009 Sep 24;28(38):3380-9. doi: 10.1038/onc.2009.193. Epub 2009 Jul 6. PubMed PMID: 19581932.
 3. Kosulin K, et al. 2013. *PLoS One*. 8:63646.
 4. Liu P, et al. 2011. *Immunol. Rev*. 238:138.
 5. Ikawa T, Hirose S, Masuda K, Kakugawa K, Satoh R, Shibano-Satoh A, et al. An essential developmental checkpoint for production of the T cell lineage. *Science*. 2010 Jul 2;329(5987):93-6. doi: 10.1126/science.1188995. PubMed PMID: 20595615.
 6. Li L, Leid M, Rothenberg EV. An early T cell lineage commitment checkpoint dependent on the transcription factor Bcl11b. *Science*. 2010 Jul 2;329(5987):89-93. doi: 10.1126/science.1188989. PubMed PMID: 20595614.
 7. Li P, Burke S, Wang J, Chen X, Ortiz M, Lee SC, et al. Reprogramming of T cells to natural killer-like cells upon Bcl11b deletion. *Science*. 2010 Jul 2;329(5987):85-9. doi: 10.1126/science.1188063. Epub 2010 Jun 10. PubMed PMID: 20538915.
 8. Tydell CC, David-Fung ES, Moore JE, Rowen L, Taghon T, Rothenberg EV. Molecular dissection of prethymic progenitor entry into the T lymphocyte developmental pathway. *J Immunol*. 2007 Jul 1;179(1):421-38. PubMed PMID: 17579063.
 9. Avram D, Fields A, Senawong T, Topark-Ngarm A, Leid M. COUP-TF (chicken ovalbumin upstream promoter transcription factor)-interacting protein 1 (CTIP1) is a sequence-specific DNA binding protein. *Biochem J*. 2002 Dec 1;368(Pt 2):555-63. PubMed PMID: 12196208.

Pictures: Jurkat cell extracts were resolved by electrophoresis, transferred to nitrocellulose, and probed with anti-CTIP2 antibody (clone 25B6). Proteins were visualized using a goat anti-rat-IgG secondary conjugated to HRP and chemiluminescence detection.



Jurkat cells were stained with anti-bcl11b, clone 25B6 (1:200 dilution), and tubulin- α , clone TU-01, followed by DyLight™ 549 conjugated anti-rat IgG and DyLight™ 488 conjugated anti-mouse IgG. Nuclei are stained with DAPI.

