

CLLU1 (E-12): sc-138203



The Power to Question

BACKGROUND

Chronic lymphocytic leukemia (CLL) is an incurable disease characterized by the presence of small mature lymphocytes, intense accumulation of monoclonal B cells and a characteristic CD5 and CD19 coexpression phenotype. While the clinical course of CLL can be highly variable, a CLL specific protein known as CLLU1 (chronic lymphocytic leukemia upregulated 1) is expressed in CLL patients, with high CLLU1 expression associated with shorter overall survival. Consisting of 121 amino acids, CLLU1 has been predicted to interact with interleukin 4 receptor (IL-4R) and is encoded by a gene located on human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p.

REFERENCES

- Delgado Carrasco, J., Casanova Morcillo, A., Zabalza Alvillos, M. and Ayala Garces, A. 2001. Achondrogenesis type II-hypochondrogenesis: radiological features. Case report. *An. Esp. Pediatr.* 55: 553-557.
- Buhl, A.M., Jurlander, J., Geisler, C.H., Pedersen, L.B., Andersen, M.K., Josefsson, P., Petersen, J.H. and Leffers, H. 2006. CLLU1 expression levels predict time to initiation of therapy and overall survival in chronic lymphocytic leukemia. *Eur. J. Haematol.* 76: 455-464.
- Josefsson, P., Geisler, C.H., Leffers, H., Petersen, J.H., Andersen, M.K., Jurlander, J. and Buhl, A.M. 2007. CLLU1 expression analysis adds prognostic information to risk prediction in chronic lymphocytic leukemia. *Blood* 109: 4973-4979.
- Chen, L., Li, J., Zheng, W., Zhang, Y., Wu, Y., Li, L., Qian, S. and Xu, W. 2007. The prognostic evaluation of CLLU1 expression levels in 50 Chinese patients with chronic lymphocytic leukemia. *Leuk. Lymphoma* 48: 1785-1792.
- Chen, L.J., Zheng, W.J., Wu, Y.J., Li, L., Qian, S.X., Xu, W. and Li, J.Y. 2007. Expression of CLLU1 in patients with chronic lymphocytic leukemia and its prognostic significance. *Zhonghua Xue Ye Xue Za Zhi* 28: 737-740.
- Lo, F.S., Luo, J.D., Lee, Y.J., Shu, S.G., Kuo, M.T. and Chiou, C.C. 2009. High resolution melting analysis for mutation detection for PTPN11 gene: applications of this method for diagnosis of Noonan syndrome. *Clin. Chim. Acta* 409: 75-77.
- Benussi, D.G., Costa, P., Zollino, M., Murdolo, M., Petix, V., Carrozzi, M. and Pecile, V. 2009. Trisomy 12p and monosomy 4p: phenotype-genotype correlation. *Genet. Test. Mol. Biomarkers* 13: 199-204.
- Buhl, A.M., Novotny, G.W., Josefsson, P., Nielsen, J.E., Pedersen, L.B., Geisler, C., Rassenti, L.Z., Kippis, T.J., Jurlander, J. and Leffers, H. 2009. The CLLU1 expression level is a stable and inherent feature of the chronic lymphocytic leukemia clone. *Leukemia* 23: 1182-1186.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: CLLU1 (human) mapping to 12q22.

SOURCE

CLLU1 (E-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of CLLU1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138203 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CLLU1 (E-12) is recommended for detection of CLLU1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with CLLU1OS.

Suitable for use as control antibody for CLLU1 siRNA (h): sc-95997, CLLU1 shRNA Plasmid (h): sc-95997-SH and CLLU1 shRNA (h) Lentiviral Particles: sc-95997-V.

Molecular Weight of CLLU1: 14 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.