Cyclon (L-12): sc-82569



The Power to Question

BACKGROUND

Cyclon, also known as CCDC86 (coiled-coil domain-containing protein 86), is a 360 amino acid nuclear protein that has been found to interact with the Hepatitis C virus protein NS5a (Hep C NS5a). The gene that encodes Cyclon maps to human chromosome 11, which is composed of 1,400 genes and makes up around 4% of human genomic DNA. The chromosome 11 encoded Atm gene is important for regulation of cell cycle arrest and apoptosis following double strand DNA breaks. Atm mutation leads to the disorder known as ataxia-telangiectasia. The blood disorders Sickle cell anemia and β thalassemia are caused by HBB gene mutations. Wilms' tumors, WAGR syndrome and Denys-Drash syndrome are associated with mutations of the WT1 gene. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are also associated with defects in chromosome 11.

REFERENCES

- Grossfeld, P.D., Mattina, T., Lai, Z., Favier, R., Jones, K.L., Cotter, F. and Jones, C. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. Am. J. Med. Genet. A 129: 51-61.
- Loussouarn, G., Baró, I. and Escande, D. 2006. KCNQ1 K+ channel-mediated cardiac channelopathies. Methods Mol. Biol. 337: 167-183.
- Taylor, T.D., Noguchi, H., Totoki, Y., Toyoda, A., Kuroki, Y., Dewar, K., Lloyd, C., Itoh, T., Takeda, T., Kim, D.W., She, X., Barlow, K.F., Bloom, T., Bruford, E., Chang, J.L., Cuomo, C.A., Eichler, E., Fitzgerald, M.G., Jaffe, D.B., LaButti, K., Nicol, R., Park, H.S., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. Nature 440: 497-500.
- Zehelein, J., Kathoefer, S., Khalil, M., Alter, M., Thomas, D., Brockmeier, K., Ulmer, H.E., Katus, H.A. and Koenen, M. 2006. Skipping of Exon 1 in the KCNQ1 gene causes Jervell and Lange-Nielsen syndrome. J. Biol. Chem. 281: 35397-35403.
- Ataga, K.I., Cappellini, M.D. and Rachmilewitz, E.A. 2007. β-thalassaemia and sickle cell anaemia as paradigms of hypercoagulability. Br. J. Haematol. 139: 3-13.
- Berger, A.C., Salazar, G., Styers, M.L., Newell-Litwa, K.A., Werner, E., Maue, R.A., Corbett, A.H. and Faundez, V. 2007. The subcellular localization of the Niemann-Pick Type C proteins depends on the adaptor complex AP-3. J. Cell. Sci. 120: 3640-3652.
- 7. Hoshino, A. and Fujii, H. 2007. Redundant promoter elements mediate IL-3-induced expression of a novel cytokine-inducible gene, cyclon. FEBS Lett. 581: 975-980.
- 8. Lee, J.H. and Paull, T.T. 2007. Activation and regulation of ATM kinase activity in response to DNA double-strand breaks. Oncogene 26: 7741-7748.
- O'Connor, M.J., Martin, N.M. and Smith, G.C. 2007. Targeted cancer therapies based on the inhibition of DNA strand break repair. Oncogene 26: 7816-7824.

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: CCDC86 (human) mapping to 11q12.2; Ccdc86 (mouse) mapping to 19 A.

SOURCE

Cyclon (L-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Cyclon of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-82569 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-82569 X, 200 $\mu g/0.1$ ml.

APPLICATIONS

Cyclon (L-12) is recommended for detection of Cyclon of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Cyclon siRNA (h): sc-77067, Cyclon siRNA (m): sc-77068, Cyclon shRNA Plasmid (h): sc-77067-SH, Cyclon shRNA Plasmid (m): sc-77068-SH, Cyclon shRNA (h) Lentiviral Particles: sc-77067-V and Cyclon shRNA (m) Lentiviral Particles: sc-77068-V.

Cyclon (L-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Cyclon: 40 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (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.

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