



UBTD2 (h): 293T Lysate: sc-113994

BACKGROUND

UBTD2 (ubiquitin domain containing 2), also known as DCUBP (dendritic cell-derived ubiquitin-like protein), DC-UbP or SB72, is a 234 amino acid cytoplasmic and mitochondrial ubiquitin-like (Ubl) protein that contains one C-terminal Ubl domain. Ubl proteins are involved in a variety of cellular processes, including DNA repair, protein sorting, apoptosis, protein degradation, cell division and autophagy. Predominantly expressed in dendritic cells and detected at high levels in tumor cell lines, UBTD2 has been implicated in apoptosis, cellular differentiation and tumorigenesis. The Ubl domain of UBTD2 is 55% similar and 28.6% identical to the amino acid sequence of ubiquitin, but it lacks the Gly-Gly motif that is essential for ubiquitination. As its Ubl domain does not actively ubiquitinate proteins, UBTD2 is believed to function as a shuttle factor involved in the ubiquitin system.

REFERENCES

1. Liu, S., An, H., Li, N., Yu, Y., Lin, N., Wan, T., Zhang, M., Wang, W. and Cao, X. 2003. Cloning and identification of a novel human ubiquitin-like protein, DC-UbP, from dendritic cells. *Biochem. Biophys. Res. Commun.* 300: 800-805.
2. Gao, Y.G., Song, A.X., Shi, Y.H., Chang, Y.G., Liu, S.X., Yu, Y.Z., Cao, X.T., Lin, D.H. and Hu, H.Y. 2005. Solution structure of the ubiquitin-like domain of human DC-UbP from dendritic cells. *Protein Sci.* 14: 2044-2050.
3. Arraztoa, J.A., Zhou, J., Marcu, D., Cheng, C., Bonner, R., Chen, M., Xiang, C., Brownstein, M., Maisey, K., Imarai, M. and Bondy, C. 2005. Identification of genes expressed in primate primordial oocytes. *Hum. Reprod.* 20: 476-483.
4. Chang, Y.G., Song, A.X., Gao, Y.G., Shi, Y.H., Lin, X.J., Cao, X.T., Lin, D.H. and Hu, H.Y. 2006. Solution structure of the ubiquitin-associated domain of human BMSC-UbP and its complex with ubiquitin. *Protein Sci.* 15: 1248-1259.
5. Koolen, D.A., Herbergs, J., Veltman, J.A., Pfundt, R., van Bokhoven, H., Stroink, H., Sistermans, E.A., Brunner, H.G., Geurts van Kessel, A. and de Vries, B.B. 2006. Holoprosencephaly and preaxial polydactyly associated with a 1.24 Mb duplication encompassing FBXW11 at 5q35.1. *J. Hum. Genet.* 51: 721-726.
6. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 610174. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: UBTD2 (human) mapping to 5q35.1.

PRODUCT

UBTD2 (h): 293T Lysate represents a lysate of human UBTD2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

UBTD2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive UBTD2 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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

PROTOCOLS

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