SANTA CRUZ BIOTECHNOLOGY, INC.

UBTD2 siRNA (h): sc-91799

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

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CHROMOSOMAL LOCATION

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

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.

PRODUCT

UBTD2 siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see UBTD2 shRNA Plasmid (h): sc-91799-SH and UBTD2 shRNA (h) Lentiviral Particles: sc-91799-V as alternate gene silencing products.

For independent verification of UBTD2 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-91799A, sc-91799B and sc-91799C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

UBTD2 siRNA (h) is recommended for the inhibition of UBTD2 expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor UBTD2 gene expression knockdown using RT-PCR Primer: UBTD2 (h)-PR: sc-91799-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.