SANTA CRUZ BIOTECHNOLOGY, INC.

UGT2B7 siRNA (h): sc-106670

BACKGROUND

UDP-glucuronosyltransferase isoenzymes (UGTs) catalyze the glucuronidation of small lipophilic molecules, thereby regulating the bioactivity and metabolic fate of a wide range of endogenous compounds and xenobiotics. Glucuronidation increases the polarity of lipophilic molecules and facilitates their entry into aqueous compartments and, ultimately, their excretion. In essence, glucuronidation provides a protective function by terminating or attenuating the biological activity of its substrates. The UGT2B family of isoenzymes are highly expressed in liver, but are also detected in several non-hepatic tissues, including skin, breast, prostate, intestine, placenta and lung. UGT2B7 (UDP-glucuronosyltransferase 2B7), also known as UGTB2B9, is a 529 amino acid single-pass membrane protein that localizes to both the microsome and the endoplasmic reticulum and belongs to the UDP-glycosyltransferase family. Exhibiting a unique specificity for 3,4-catechol estrogens and estriol, UGT2B7 is thought to play an important role in the regulation of both the level and the activity of estrogen metabolites.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: UGT2B7 (human) mapping to 4q13.2.

PRODUCT

UGT2B7 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 UGT2B7 shRNA Plasmid (h): sc-106670-SH and UGT2B7 shRNA (h) Lentiviral Particles: sc-106670-V as alternate gene silencing products.

For independent verification of UGT2B7 (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-106670A, sc-106670B and sc-106670C.

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

UGT2B7 siRNA (h) is recommended for the inhibition of UGT2B7 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 UGT2B7 gene expression knockdown using RT-PCR Primer: UGT2B7 (h)-PR: sc-106670-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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