SANTA CRUZ BIOTECHNOLOGY, INC.

Hbb-bh1 siRNA (m): sc-145900

BACKGROUND

Hemoglobin, myoglobin, neuroglobin and cytoglobin are porphyrin-containing proteins that belong to the globin family and function in oxygen transport and storage. Hemoglobin contributes to oxygen storage and diffusion of oxygen in blood tissue. Hbb-bh1 (hemoglobin subunit β-H1), also known as Protein Z or βH1, is a 147 amino acid protein that belongs to the globin family. Existing as a heterotetramer of two α and two β chains, Hbb-bh1 is expressed in red blood cells. The gene encoding Hbb-bh1 maps to mouse chromosome 7 E3. The human homolog to Hbb-bh1, known as Hemoglobin or HBG1, is expressed in fetal liver, spleen and bone marrow until four or five weeks after birth. Fetal hemoglobin (HbF), which consists of two γ and two α chains, is replaced by adult hemoglobin (HbA) at birth.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Hbb-bh1 (mouse) mapping to 7 E3.

PRODUCT

Hbb-bh1 siRNA (m) is a target-specific 19-25 nt siRNA 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 Hbb-bh1 shRNA Plasmid (m): sc-145900-SH and Hbb-bh1 shRNA (m) Lentiviral Particles: sc-145900-V as alternate gene silencing products.

PROTOCOLS

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

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

Hbb-bh1 siRNA (m) is recommended for the inhibition of Hbb-bh1 expression in mouse 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 Hbb-bh1 gene expression knockdown using RT-PCR Primer: Hbb-bh1 (m)-PR: sc-145900-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.