HBE1 siRNA – Hemoglobin Subunit Epsilon (Human)

PRODUCT OVERVIEW

Product Name	HBE1, siRNA
Full Product Name	HBE1 siRNA (Human)
Product Gene Name	HBE1 sirna
Product Synonym Names	HBE; Hemoglobin subunit epsilon; Epsilon-globin; Hemoglobin epsilon chain
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	HBE1 siRNA (Human) is a target-specific 19-23 nt siRNA oligo duplexes designed to knock down gene expression.
Preparation and Storage	Shipped at 4 degree C. Store at -20 degree C for one year.
Molecular Weight	16,203 Da
OMIM	142100
3D Structure	ModBase 3D Structure for P02100
Negative Control	siRNA Negative Control (Catalog# MBS8241404) is a non-targeting 21 nt siRNA recommended as a negative control for experiments using targeted siRNA transfection.
Quality Control	Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure appropriate coupling efficiency. The oligo is subsequently purified by affinity-solid phase extraction. The annealed RNA duplex is further analyzed by mass spectrometry to verify the exact composition of the duplex. Each lot is compared to the previous lot by mass spectrometry to ensure maximum lot-to-lot consistency.
Directions for Use	We recommends transfection with 100 nM siRNA 48 to 72 hours prior to cell lysis. Before resuspending, briefly centrifuge the tube to ensure the lyophilized siRNA is at the bottom of the tube. Resuspend the siRNA oligos to an appropriate concentration with DEPC water. For each vial, suitable for 250 transfections in 24 well plate (20 pmol for each well).
Components	We offer pre-designed sets of 3 different target-specific siRNA oligo duplexes of human HBE1 gene. Each vial contains 5 nmol of lyophilized siRNA. The duplexes can be transfected individually or pooled together to achieve knockdown of the target gene, which is most commonly assessed by qPCR or western blot. Our siRNA oligos are also chemically modified (2'-OMe) at no extra charge for increased stability and enhanced knockdown in vitro and in vivo.
Applications Tested/Suitable for HBE1 sirna	RNA Interference (RNAi)
Related Product Information for HBE1 sirna	MBS8228502 is an siRNA targeting HBE1. Also known as HBE1 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit HBE1 expression using RNA interference
Other Notes	Small volumes of HBE1 sirna vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HBE1. It may not necessarily be applicable to this product.

NCBI GI #	4885393
NCBI GeneID	3046
NCBI Accession #	NP_005321.1
UniProt Primary Accession #	P02100
UniProt Secondary Accession #	Q6FH44
UniProt Related Accession #	P02100
GenBank Nucleotide #	NM_005330.3
NCBI Official Full Name	hemoglobin subunit epsilon
NCBI Official Synonym Full Names	hemoglobin, epsilon 1
NCBI Official Symbol	HBE1
NCBI Official Synonym Symbols	HBE
UniProt Protein Name	Hemoglobin subunit epsilon
UniProt Synonym Protein Names	Epsilon-globin; Hemoglobin epsilon chain
Protein Family	Hemoglobin
UniProt Gene Name	HBE1
UniProt Synonym Gene Names	HBE
UniProt Entry Name	HBE_HUMAN
NCBI Protein Information	hemoglobin subunit epsilon
NCBI Summary for HBE1	The epsilon globin gene (HBE) is normally expressed in the embryonic yolk sac: two epsilon chains together with two zeta chains (an alpha-like globin) constitute the embryonic hemoglobin Hb Gower I; two epsilon chains together with two alpha chains form the embryonic Hb Gower II. Both of these embryonic hemoglobins are normally supplanted by fetal, and later, adult hemoglobin. The five beta-like globin genes are found within a 45 kb cluster on chromosome 11 in the following order: 5'-epsilon - G-gamma - A-gamma - delta - beta-3' [provided by RefSeq, Jul 2008]
UniProt Comments for HBE1	HBE1: The epsilon chain is a beta-type chain of early mammalian embryonic hemoglobin. Belongs to the globin family. Protein type: Carrier Chromosomal Location of Human Ortholog: 11p15.5 Cellular Component: hemoglobin complex; cytosol Molecular Function: iron ion binding; heme binding; hemoglobin alpha binding; oxygen binding; oxygen transporter activity Biological Process: oxygen transport; protein heterooligomerization; negative regulation of transcription from RNA polymerase II promoter; blood coagulation
Research Articles on HBE1	**1.** Data indicate that Myb and BCL11A cooperate with DNMT1 to achieve developmental repression of embryonic and fetal beta-like human transgenic globin genes in the adult erythroid environment.
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