SANTA CRUZ BIOTECHNOLOGY, INC.

BRD8 siRNA (h): sc-92032

BACKGROUND

BRD8 (bromodomain containing protein 8), also designated skeletal muscle abundant protein (SMAP or SMAP2) or thyroid hormone receptor coactivating protein 120 kDa (p120 or TrCP120), is a 1,235 amino acid transcription regulation factor that contains two bromodomains and is expressed in adipose tissue, brain, heart, kidney, liver, lung, pancreas, placenta and skeletal muscle. BRD8 mRNA is upregulated during neointima formation in a rat carotid endarterectomy model and may therefore be involved in the progression of atherosclerosis in aorta. BRD8 is a member of the NuA4 histone acetyltransferase complex, which may be responsible for the activation of transcriptional programs associated with oncogene and proto-oncogene mediated growth induction, tumor suppressor mediated growth arrest and replicative senescence, apoptosis and DNA repair.

REFERENCES

1. Nielsen, M.S., et al. 1996. Cloning and sequencing of a human cDNA encoding a putative transcription factor containing a bromodomain. Biochim. Biophys. Acta 1306: 14-16.
2. Monden, T., et al. 1997. Isolation and characterization of a novel ligand-dependent thyroid hormone receptor-coactivating protein. J. Biol. Chem. 272: 29834-29841.
3. Monden, T., et al. 1999. p120 acts as a specific coactivator for 9-*cis*-retinoic acid receptor (RXR) on peroxisome proliferator-activated receptor-γ/RXR heterodimers. Mol. Endocrinol. 13: 1695-1703.
4. Nishimoto, S., et al. 2002. Identification of a novel smooth muscle associated protein, smap2, upregulated during neointima formation in a rat carotid endarterectomy model. Biochim. Biophys. Acta 1576: 225-230.
5. Cai, Y., et al. 2003. Identification of new subunits of the multiprotein mammalian TRRAP/TIP60-containing histone acetyltransferase complex. J. Biol. Chem. 278: 42733-42736.
6. Doyon, Y., et al. 2004. The highly conserved and multifunctional NuA4 HAT complex. Curr. Opin. Genet. Dev. 14: 147-154.
7. Doyon, Y., et al. 2004. Structural and functional conservation of the NuA4 histone acetyltransferase complex from yeast to humans. Mol. Cell. Biol. 24: 1884-1896.

CHROMOSOMAL LOCATION

Genetic locus: BRD8 (human) mapping to 5q31.2.

PRODUCT

BRD8 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 BRD8 shRNA Plasmid (h): sc-92032-SH and BRD8 shRNA (h) Lentiviral Particles: sc-92032-V as alternate gene silencing products.

For independent verification of BRD8 (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-92032A, sc-92032B and sc-92032C.

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

BRD8 siRNA (h) is recommended for the inhibition of BRD8 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 BRD8 gene expression knockdown using RT-PCR Primer: BRD8 (h)-PR: sc-92032-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.

PROTOCOLS

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