SANTA CRUZ BIOTECHNOLOGY, INC.

IER5 siRNA (h): sc-88172

BACKGROUND

IER5 (immediate early response 5), also known as SBBI48, is a 327 amino acid protein belonging to the immediate early response (IER) family of proteins. IER proteins are the first gene products to be induced during growth stimulation and/or arrest. Considered an early transcription factor, IER5 may be involved in mediating PSP (proteins and peptide bound polysaccharides)-induced apoptosis in HL-60 cells. PSP extracted from Basidiomycetous fungi are widely used in cancer immunotherapy and suggested to induce apoptosis in cancer cells *in vitro*. The gene encoding IER5 is located on human chromosome 1, which houses over 3,000 genes and is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: IER5 (human) mapping to 1q25.3.

PRODUCT

IER5 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 IER5 shRNA Plasmid (h): sc-88172-SH and IER5 shRNA (h) Lentiviral Particles: sc-88172-V as alternate gene silencing products.

For independent verification of IER5 (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-88172A, sc-88172B and sc-88172C.

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

IER5 siRNA (h) is recommended for the inhibition of IER5 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 IER5 gene expression knockdown using RT-PCR Primer: IER5 (h)-PR: sc-88172-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.