



Gas6 siRNA (h): sc-35450

BACKGROUND

Growth arrest specific proteins, including Gas1 and Gas6, are activated in quiescent cells. Gas1-induced growth arrest is mediated by p53, and Gas1 appears to be able to suppress tumor cell growth. Gas6, a ligand for the tyrosine kinase receptor Axl, was initially identified as a member of the Vitamin K-dependent protein family and exhibits a high degree of amino acid sequence homology to protein S, a negative co-regulator in the coagulation pathway.

REFERENCES

1. Schneider, C., et al. 1988. Genes specifically expressed at growth arrest of mammalian cells. *Cell* 54: 787-793.
2. Del Sal, G., et al. 1992. The growth arrest-specific gene, Gas1, is involved in growth suppression. *Cell* 70: 595-607.
3. Manfioletti, G., et al. 1993. The protein encoded by a growth arrest-specific gene (Gas6) is a new member of the Vitamin K-dependent proteins related to protein S, a negative coregulator in the blood coagulation cascade. *Mol. Cell. Biol.* 13: 4976-4985.
4. Del Sal, G., et al. 1994. Structure, function and chromosome mapping of the growth-suppressing human homologue of the murine Gas1 gene. *Proc. Natl. Acad. Sci. USA* 91: 1848-1852.
5. Del Sal, G., et al. 1995. Gas1-induced growth suppression requires a trans-activation-independent p53 function. *Mol. Cell. Biol.* 15: 7152-7160.
6. Stitt, T.N., et al. 1995. The anticoagulation factor protein S and its relative, Gas6, are ligands for the Tyro3/Axl family of receptor tyrosine kinases. *Cell* 80: 661-670.

CHROMOSOMAL LOCATION

Genetic locus: GAS6 (human) mapping to 13q34.

PRODUCT

Gas6 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Gas6 shRNA Plasmid (h): sc-35450-SH and Gas6 shRNA (h) Lentiviral Particles: sc-35450-V as alternate gene silencing products.

For independent verification of Gas6 (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-35450A, sc-35450B and sc-35450C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Gas6 siRNA (h) is recommended for the inhibition of Gas6 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 μ M in 66 μ l. 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.

GENE EXPRESSION MONITORING

Gas6 (A-9): sc-376087 is recommended as a control antibody for monitoring of Gas6 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Gas6 gene expression knockdown using RT-PCR Primer: Gas6 (h)-PR: sc-35450-PR (20 μ l, 434 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Roberts, C.M., et al. 2016. TWIST1 drives cisplatin resistance and cell survival in an ovarian cancer model, via upregulation of Gas6, L1CAM, and Akt signalling. *Sci. Rep.* 6: 37652.

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.