SANTA CRUZ BIOTECHNOLOGY, INC.

XAGE-2 siRNA (h): sc-91153

BACKGROUND

The GAGE family is comprised of a number of highly homologous acidic proteins involved in immunity and germ cell biology. Expressed most frequently in cancerous tissue, members of the GAGE family are considered potential targets for cancer immunotherapy. XAGE-2 (X antigen family, member 2), also known as GAGED3 (G antigen family D member 3) or CT12.2, is a 111 amino acid protein belonging to the GAGE family and XAGE subfamily. Strongly expressed in normal testis, XAGE-2 is also found in Ewing's sarcoma, rhabdomyosarcoma, and breast cancer and germ cell tumors. XAGE-2 shares high sequence homology with other GAGE/PAGE proteins, and similarly belongs to the CT (cancer-testis) family of antigens.

REFERENCES

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2. Zendman, A.J., Van Kraats, A.A., Weidle, U.H., Ruiter, D.J. and Van Muijen, G.N. 2002. The XAGE family of cancer/testis-associated genes: alignment and expression profile in normal tissues, melanoma lesions and Ewing's sarcoma. Int. J. Cancer 99: 361-369.
3. Shao, J.B. and Chen, Z. 2003. Expression of MAGE, GAGE, and BAGE genes in human hepatocellular carcinoma. Zhonghua Gan Zang Bing Za Zhi 11: 142-144.
4. Kong, U., Koo, J., Choi, K., Park, J. and Chang, H. 2004. The expression of GAGE gene can predict aggressive biologic behavior of intestinal type of stomach cancer. Hepatogastroenterology 51: 1519-1523.
5. Chen, Y.T., Iseli, C., Venditti, C.A., Old, L.J., Simpson, A.J. and Jongeneel, C.V. 2006. Identification of a new cancer/testis gene family, CT47, among expressed multicopy genes on the human X chromosome. Genes Chromosomes Cancer 45: 392-400.
6. Gjerstorff, M.F. and Ditzel, H.J. 2008. An overview of the GAGE cancer/testis antigen family with the inclusion of newly identified members. Tissue Antigens 71: 187-192.

CHROMOSOMAL LOCATION

Genetic locus: XAGE2 (human) mapping to Xp11.22.

PRODUCT

XAGE-2 siRNA (h) 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 XAGE-2 shRNA Plasmid (h): sc-91153-SH and XAGE-2 shRNA (h) Lentiviral Particles: sc-91153-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

XAGE-2 siRNA (h) is recommended for the inhibition of XAGE-2 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 XAGE-2 gene expression knockdown using RT-PCR Primer: XAGE-2 (h)-PR: sc-91153-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.