SANTA CRUZ BIOTECHNOLOGY, INC.

Kazrin siRNA (h): sc-78617

BACKGROUND

Kazrin, also known as KAZ, KAZN or KIAA1026, is a 775 amino acid protein that contains 3 SAM (sterile α motif) domains and belongs to the Kazrin family. Kazrin exists as five alternatively spliced isoforms, designated 1-5. Localizing to the cytoplasm, Kazrin isoforms 2, 3 and 4 are expressed in hair follicles, interfollicular epidermis, and various cell lines including keratinocytes. Kazrin co-localizes with desmoplakin and interacts with the N-terminus of periplakin (PPL). Kazrin is a component of the cornified envelope of keratinocytes and may play a role in desmosome assembly, cell adhesion, epidermal differentiation and cytoskeletal organization. Overexpression of Kazrin may lead to changes in cell shape, decrease levels of filamentous actin and impaired intercellular junction assembly. The gene encoding Kazrin maps to human chromosome 1p36.21 and mouse chromosome 4 E1.

REFERENCES

1. Groot, K.R., Sevilla, L.M., Nishi, K., DiColandrea, T. and Watt, F.M. 2004. Kazrin, a novel periplakin-interacting protein associated with desmosomes and the keratinocyte plasma membrane. J. Cell Biol. 166: 653-659.
2. Gallicano, G.I., Foshay, K., Pengetnze, Y. and Zhou, X. 2005. Dynamics and unexpected localization of the plakin binding protein, kazrin, in mouse eggs and early embryos. Dev. Dyn. 234: 201-214.
3. Sevilla, L.M., Nachat, R., Groot, K.R. and Watt, F.M. 2008. Kazrin regulates keratinocyte cytoskeletal networks, intercellular junctions and differentiation. J. Cell Sci. 121: 3561-3569.
4. Wang, Q., Liu, M., Li, X., Chen, L. and Tang, H. 2009. Kazrin F is involved in apoptosis and interacts with BAX and ARC. Acta Biochim. Biophys. Sin. 41: 763-772.
5. Nachat, R., Cipolat, S., Sevilla, L.M., Chhatriwala, M., Groot, K.R. and Watt, F.M. 2009. KazrinE is a desmosome-associated liprin that colocalises with acetylated microtubules. J. Cell Sci. 122: 4035-4041.
6. Cho, K., Lee, M., Gu, D., Munoz, W.A., Ji, H., Kloc, M. and McCrea, P.D. 2011. Kazrin, and its binding partners ARVCF- and δ-catenin, are required for *Xenopus laevis* craniofacial development. Dev. Dyn. 240: 2601-2612.

CHROMOSOMAL LOCATION

Genetic locus: KAZN (human) mapping to 1p36.21.

PRODUCT

Kazrin 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 Kazrin shRNA Plasmid (h): sc-78617-SH and Kazrin shRNA (h) Lentiviral Particles: sc-78617-V as alternate gene silencing products.

For independent verification of Kazrin (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-78617A, sc-78617B and sc-78617C.

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

Kazrin siRNA (h) is recommended for the inhibition of Kazrin 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 Kazrin gene expression knockdown using RT-PCR Primer: Kazrin (h)-PR: sc-78617-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.