SANTA CRUZ BIOTECHNOLOGY, INC.

11β-HSD2 (h3): 293T Lysate: sc-110103

BACKGROUND

Glucocorticoid hormone action in target tissues is modulated by 11β-hydroxysteroid dehydrogenase (11β-HSD), which catalyzes the interconversion of hormonally active C11-hydroxylated corticosteroids (cortisol, corticosterone) and their inactive C11-keto metabolites (cortisone,11-dehydrocorticosterone). At least two isoforms of 11β-HSD exist: a low-affinity NADP-dependent dehy-drogenase/oxoreductase (11β-HSD1) and a high-affinity NAD-dependent dehydrogenase (11β-HSD2). The glycosylated 11β-HSD1 protein activates cortisol from cortisone, which is widely expressed in mammals, and is most highly expressed in the liver. 11β-HSD2 inactivates cortisol to cortisone and is expressed in placenta, aldosterone target tissues (kidney, parotid, colon and skin) and pancreas. 11β-HSD1 may play a role in glucose homeostasis and pathogenesis of a number of disorders including Insulin resistance and obesity. 11β-HSD2 associates with differentiation or maturation in human colonic epithelia and may serve as a marker in development and disease. In addition, 11β-HSD2 plays a crucial role in modulating mineralcorticoid and glucocorticoid receptor occupancy by glucocorticoids.

REFERENCES

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6. Arcuri, F., et al. 1999. Expression of 11β-hydroxysteroid dehydrogenase in early pregnancy: implications in human trophoblast-endometrial interactions. Semin. Reprod. Endocrinol. 17: 53-61.
7. Rauz, S., et al. 2001. Expression and putative role of 11β-hydroxysteroid dehydrogenase isozymes within the human eye. Invest. Ophthalmol. Vis. Sci. 42: 2037-2042.
8. Walker, E.A., et al. 2001. Functional expression, characterization, and purification of the catalytic domain of human 11β-hydroxysteroid dehydrogenase type 1. J. Biol. Chem. 276: 21343-21350.
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STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: HSD11B2 (human) mapping to 16q22.1.

PRODUCT

11β-HSD2 (h3): 293T Lysate represents a lysate of human 11β-HSD2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

11β-HSD2 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive 11β-HSD2 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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.