SANTA CRUZ BIOTECHNOLOGY, INC.

MCR (1-300): sc-4419 WB

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mineralocorticoid hormones are primarily found in epithelial tissues where they function as regulators of Na^+, K^+ and H^+ ion transport. Aldosterone is a mineralocorticoid that has been shown to regulate electrolyte excretion and intravascular volume and is therefore involved in blood pressure regulation. Mineralocorticoid receptor (MCR or MR) is a member of the steroid/thyroid/retinoic nuclear hormone receptor superfamily that has been shown to activate gene transcription in response to aldosterone binding. Regulation of the mineralocorticoid receptors occurs through either receptor down-regulation (negative autoregulation) or hormone-mediated upregulation (positive autoregulation). MCR association with HSP 90 appears to be required for hormone binding to MCR and subsequent MCR activation.

REFERENCES

1. Arriza, J.L., et al. 1987. Cloning of human mineralocorticoid receptor complementary DNA: structural and functional kinship with the glucocorticoid receptor. Science 237: 268-275.
2. Johnson, J.P. 1992. Cellular mechanisms of action of mineralocorticoid hormones. Pharmacol. Ther. 53: 1-29.
3. Schmidt, T.U. and Meyer, A.S. 1994. Autoregulation of corticosteroid receptors. How, when, where, and why? Receptor 4: 229-257.
4. Kumar, M.V. and Tindall, D.J. 1998. Transcriptional regulation of the steroid receptor genes. Prog. Nucl. Acid Res. Mol. Biol. 59: 289-306.
5. White, P.C. 1996. Inherited forms of mineralocorticoid hypertension. Hypertension 28: 927-936.
6. Bamberger, C.M., et al. 1997. Inhibition of mineralocorticoid and glucocorticoid receptor function by the heat shock protein 90-binding agent geldanamycin. Mol. Cell. Endocrinol. 131: 233-240.
7. Leo, J.C., et al. 2004. Glucocorticoid and mineralocorticoid cross-talk with progesterone receptor to induce focal adhesion and growth inhibition in breast cancer cells. Endocrinology 145: 1314-1321.

SOURCE

MCR (1-300) is expressed in *E. coli* as a 60 kDa tagged fusion protein corresponding to amino acids 1-300 mapping within the carboxy terminal domain of MCR of human origin.

PRODUCT

MCR (1-300) is purified from bacterial lysates (>98%) by glutathione agarose chromatography and supplied as 10 µg in 0.1 ml SDS-PAGE loading buffer.

APPLICATIONS

MCR (1-300) is recommended for use as a Western blotting control for sc-6860, sc-11412, sc-392256, sc-392257 and sc-392258.

Molecular Weight of MCR: 102 kDa.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

SELECT PRODUCT CITATIONS

1. Dhawan, L. and Liu, B. 2007. A novel role for the glucocorticoid receptor in the regulation of monocyte chemoattractant protein-1 mRNA stability. J. Biol. Chem. 282: 10146-10152.
2. Dhawan, L., et al. 2012. Y-box binding protein 1 and RNase UK114 mediate monocyte chemoattractant protein 1 mRNA stability in vascular smooth muscle cells. Mol. Cell. Biol. 32: 3768-3775.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.