

resistin-like α (mBA-89): sc-4954

BACKGROUND

The 12.5kDa cysteine-rich, adipose tissue-specific, secretory factor resistin (resistance to insulin, also known as ADSF) is a secreted hormone that potentially links obesity to diabetes. Resistin is rich in serine and cysteine residues and contains a unique cysteine repeat motif. Resistin and the resistin-like molecules share the characteristic cysteine composition and other signature features. Resistin-like α is a secreted protein that has restricted tissue distribution and is most highly expressed in adipose tissue. Another family member, resistin-like β , is a secreted protein expressed only in the gastrointestinal tract, particularly in the colon, in both mouse and human. Resistin-like β expression is highest in proliferative epithelial cells and is markedly increased in tumors, suggesting a role in intestinal proliferation.

REFERENCES

1. Kim, K.H., Lee, K., Moon, Y.S. and Sul, H.S. 2001. A cysteine-rich adipose tissue-specific secretory factor inhibits adipocyte differentiation. *J. Biol. Chem.* 276: 11252-11256.
2. Dove, A. 2001. Resistin diabetes. *Nat. Biotechnol.* 19: 217.
3. Flier, J.S. 2001. Diabetes. The missing link with obesity? *Nature* 409: 292-293.
4. Stepan, C.M., Bailey, S.T., Bhat, S., Brown, E.J., Banerjee, R.R., Wright, C.M., Patel, H.R., Ahima, R.S., and Lazar, M.A. 2001. The hormone resistin links obesity to diabetes. *Nature* 409: 307-312.
5. Stepan, C.M., Brown, E.J., Wright, C.M., Bhat, S., Banerjee, R.R., Dai, C.Y., Enders, G.H., Silberg, D.G., Wen, X., Wu, G.D., and Lazar, M.A. 2001. A family of tissue-specific resistin-like molecules. *Proc. Natl. Acad. Sci. USA* 98: 502-506.
6. Vendrell, J., Broch, M., Vilarrasa, N., Molina, A., Gomez, J.M., Gutierrez, C., Simon, I., Soler, J., and Richart, C. 2004. Resistin, adiponectin, ghrelin, leptin, and proinflammatory cytokines: relationships in obesity. *Obes. Res.* 12: 962-971.
7. Banerjee, R.R., Rangwala, S.M., Shapiro, J.S., Rich, A.S., Rhoades, B., Qi, Y., Wang, J., Rajala, M.W., Poci, A., Scherer, P.E., Stepan, C.M., Ahima, R.S., Obici, S., Rossetti, L., and Lazar, M.A. 2004. Regulation of fasted blood glucose by resistin. *Science* 303: 1195-1198.
8. Patel, S.D., Rajala, M.W., Rossetti, L., Scherer, P.E., and Shapiro, L. 2004. Disulfide-dependent multimeric assembly of resistin family hormones. *Science* 304: 1154-1158.
9. Stepan, C.M., and Lazar, M.A. 2004. The current biology of resistin. *J. Intern. Med.* 255: 439-447.

SOURCE

resistin-like α (mBA-89) is produced in *E. coli* as 9.5 kDa biologically active protein corresponding to 89 amino acids of resistin-like α of mouse origin.

PRODUCT

resistin-like α (mBA-89) is purified from bacterial lysates (>98%); supplied as 25 μ g purified protein.

RECONSTITUTION

In order to avoid freeze/thaw damaging of the active protein, dilute protein when first used to desired working concentration. Either a sterile filtered standard buffer (such as 50mM TRIS or 1X PBS) or water can be used for the dilution. Store any thawed aliquot in refrigeration at 2° C to 8° C for up to four weeks, and any frozen aliquot at -20° C to -80° C for up to one year. It is recommended that frozen aliquots be given an amount of standard cryopreservative (such as Ethylene Glycol or Glycerol 5-20% v/v), and refrigerated samples be given an amount of carrier protein (such as heat inactivated FBS or BSA to 0.1% v/v) or non-ionic detergent (such as Triton X-100 or Tween 20 to 0.005% v/v), to aid stability during storage.

STORAGE

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

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.