SANTA CRUZ BIOTECHNOLOGY, INC.

ALS (h): 293T Lysate: sc-114036

BACKGROUND

The Insulin-like growth factor binding proteins, or IGFBPs, are a family of seven proteins that have co-evolved with the IGFs. IGFBPs serve as shuttle molecules for both IGF-I and IGF-II and confer a level of regulation to the IGF signaling system by influencing the bio-availability, concentration and distribution of IGFs in the extracellular environment. In human circulation, the IGF-binging protein complex requires ALS (IGFBP acid-labile subunit), an extracellular protein involved in receptor-ligand binding and cell adhesion. ALS, detected primarily in plasma, is involved in protein-protein interactions that result in the formation of protein complexes.

REFERENCES

1. Baxter, R.C., Martin, J.L. and Beniac, V.A. 1989. High molecular weight Insulin-like growth factor binding protein complex. Purification and properties of the acid-labile subunit from human serum. J. Biol. Chem. 264: 11843-11848.
2. Leong, S.R., Baxter, R.C., Camerato, T., Dai, J. and Wood, W.I. 1992. Structure and functional expression of the acid-labile subunit of the Insulin-like growth factor-binding protein complex. Mol. Endocrinol. 6: 870-876.
3. Fischer, F., Schulte, H., Mohan, S., Tataru, M.C., Kohler, E., Assmann, G. and von Eckardstein, A. 2004. Associations of Insulin-like growth factors, Insulin-like growth factor binding proteins and acid-labile subunit with coronary heart disease. Clin. Endocrinol. 61: 595-602.
4. de Boer, L., Hoogerbrugge, C.M., van Doorn, J., van Buul-Offers, S.C., Karperien, M. and Wit, J.M. 2004. Plasma Insulin-like growth factors (IGFs), IGF-Binding proteins (IGFBPs), acid-labile subunit (ALS) and IGFBP3 proteolysis in individuals with clinical characteristics of Sotos syndrome. J. Pediatr. Endocrinol. Metab. 17: 615-627.
5. Payet, L.D., Firth, S.M. and Baxter, R.C. 2004. The role of the acid-labile subunit in regulating Insulin-like growth factor transport across human umbilical vein endothelial cell monolayers. J. Clin. Endocrinol. Metab. 89: 2382-2389.
6. Lee, D.H., Chun, C., Kim, S.H. and Lee, C.Y. 2005. Expression of porcine acid-labile subunit (pALS) of the 150-kilodalton ternary Insulin-like growth factor complex and initial characterization of recombinant pALS protein. J. Biochem. Mol. Biol. 38: 225-231.
7. Liu, T., Qian, W.J., Gritsenko, M.A., Camp, D.G., 2nd., Monroe, M.E., Moore, R.J. and Smith, R.D. 2005. Human plasma N-glycoproteome analysis by immunoaffinity subtraction, hydrazide chemistry, and mass spectrometry. J. Proteome Res. 4: 2070-2080.

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.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: IGFALS (human) mapping to 16p13.3.

PRODUCT

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

APPLICATIONS

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

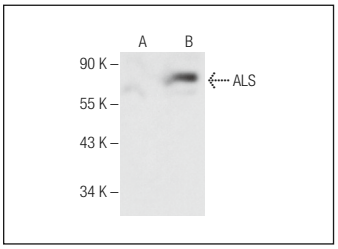
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-tranfected 293T cells.

ALS (E-2): sc-377131 is recommended as a positive control antibody for Western Blot analysis of enhanced human ALS expression in ALS transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



ALS (E-2): sc-377131. Western blot analysis of ALS expression in non-transfected: sc-117752 (**A**) and human ALS transfected: sc-114036 (**B**) 293T whole cell lysates.

RESEARCH USE

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