ASRGL1 (h4): 293T Lysate: sc-372961



The Power to Question

BACKGROUND

ASRGL1 (asparaginase-like protein 1), also known as CRASH, is a 308 amino acid protein belonging to the Ntn-hydrolase family. This family of proteins shares a four-layered, catalytically-active $\alpha\beta\beta\alpha$ -core structure and has been shown to be evolutionarily related to penicillin V acylase. Specifically, asparaginases utilize asparagine as a substrate to produce aspartic acid and ammonia. ASRGL1 has been identified as a autoantigenic protein that is present in the mid-piece of sperm after obstruction of the male reproductive tract. Suggested to subcellularly localize to mitochondria, ASRGL1 is expressed highly in testis, but is also expressed in brain, kidney and gastrointestinal tissues. High levels of ASRGL1 have also been identified in ovarian, uterine and mammary tumors in comparison with normal tissues of the same origin. There are two named isoforms of ASRGL1 which are produced by alternative splicing.

REFERENCES

- 1. Handley, H.H., et al. 1988. Post-vasectomy sperm autoimmunogens in the Lewis rat. Biol. Reprod. 39: 1239-1250.
- 2. Handley, H.H., et al. 1991. Localization of post-vasectomy sperm autoantigens in the Lewis rat. J. Reprod. Immunol. 20: 205-220.
- Herr, J.C., et al. 1999. Sperm mitochondria-associated cysteine-rich protein (SMCP) is an autoantigen in Lewis rats. Biol. Reprod. 61: 428-435.
- Suresh, C.G., et al. 1999. Penicillin V acylase crystal structure reveals new Ntn-hydrolase family members. Nat. Struct. Biol. 6: 414-416.
- 5. Bush, L.A., et al. 2002. A novel asparaginase-like protein is a sperm auto-antigen in rats. Mol. Reprod. Dev. 62: 233-247.
- 6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609212. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 7. Evtimova, V., et al. 2004. Identification of CRASH, a gene deregulated in gynecological tumors. Int. J. Oncol. 24: 33-41.
- 8. Michalska, K., et al. 2008. The mechanism of autocatalytic activation of plant-type L-asparaginases. J. Biol. Chem. 283: 13388-13397.

CHROMOSOMAL LOCATION

Genetic locus: ASRGL1 (human) mapping to 11q12.3.

PRODUCT

ASRGL1 (h4): 293T Lysate represents a lysate of human ASRGL1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

ASRGL1 (h4): 293T Lysate is suitable as a Western Blotting positive control for human reactive ASRGL1 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.

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