SANTA CRUZ BIOTECHNOLOGY, INC.

ADAM25 (G-20): sc-26005

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The ADAM (A Disintegrin And Metalloprotease) protein family, which includes over 30 membrane-anchored, glycosylated, Zn^{2+} dependent proteases, plays a role in cell-cell and cell-matrix interface related processes, including fertilization, muscle fusion, secretion of tumor necrosis factor-α (TNFα), and modulation of the neurogenic function of Notch and Delta. The ADAM proteins possess a signal-domain, a pro-domain, a metalloprotease domain, a disintegrin domain (Integrin ligand), a cysteine-rich region, an epidermal growth factor-like domain, a transmembrane domain, and a cytoplasmic tail. ADAMs are expressed in a wide range of mammalian tissues and several are abundantly expressed in the male reproductive tract. Three testis-specific ADAM family members include ADAM24, ADAM25, and ADAM26, which are alternatively designated testase 1, testase 2, and testase 3, respectively. ADAM25 exists as two transcripts produced by different genes (α and β). ADAM24, an 88 kDa protein, is proteolytically processed on the sperm plasma membrane, and, therefore, may facilitate sperm penetration of the zona pellucida.

REFERENCES

1. Wolfsberg, T.G., Primakoff, P., Myles, D.G. and White, J.M. 1995. ADAM, a novel family of membrane proteins containing a disintegrin and metalloprotease domain: multipotential functions in cell-cell and cell-matrix interactions. J. Cell Biol. 131: 275-278.
2. Primakoff, P. and Myles, D.G. 2000. The ADAM gene family: surface proteins with adhesion and protease activity. Trends Genet. 16: 83-87.
3. Stone, A.L., Kroeger, M., and Sang, Q.X. 1999. Structure-function analysis of the ADAM family of disintegrin-like and metalloproteinase-containing proteins (review). J. Protein Chem. 18: 447-465.
4. Zhu, G.Z., Myles, D.G. and Primakoff, P. 2001. Testase 1 (ADAM24) a plasma membrane-anchored sperm protease implicated in sperm function during epididymal maturation or fertilization. J. Cell Sci. 114: 1787-1794.
5. Zhu, G.Z., Lin, Y., Myles, D.G. and Primakoff, P. 1999. Identification of four novel ADAMs with potential roles in spermatogenesis and fertilization. Gene. 234: 227-237.
6. Bolcun, E., Rzymski, T., Nayernia, K. and Engel, W. 2004. ADAM family genes testase 2α and 2β are chromosomally linked and simultaneously expressed in male germ cells. Mol. Reprod. Dev. 65: 19-22.

CHROMOSOMAL LOCATION

Genetic locus: Adam25 (mouse) mapping to 8 A4.

SOURCE

ADAM25 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADAM25 of mouse origin.

PROTOCOLS

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-26005 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ADAM25 (G-20) is recommended for detection of ADAM25 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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