BACKGROUND

The ADAM (a disintegrin and metalloprotease) protein family, which includes over 30 membrane-anchored, glycosylated, Zn²⁺ dependent proteases, plays a role in cell-cell and cell-matrix interface related processes, including fertilization, muscle fusion, secretion of TNFα (tumor necrosis factor α), 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. ADAM22 and ADAM23 (designated MDC2 and MDC3, respectively) are structurally similar proteins that contain a disrupted zinc-binding motif, and both are highly expressed in brain. The genes encoding human ADAM22 and ADAM23 map to chromosomes 7q21.12 and 2q33, respectively.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: ADAM22 (human) mapping to 7q21.12; ADAM22 (mouse) mapping to 5 A1.

SOURCE

ADAM22 (C-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 286-319 within an internal region of ADAM22 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-373931 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ADAM22 (C-2) is recommended for detection of ADAM22 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

Suitable for use as control antibody for ADAM22 siRNA (h): sc-41419, ADAM22 siRNA (m): sc-41420, ADAM22 shRNA Plasmid (h): sc-41419-SH, ADAM22 shRNA Plasmid (m): sc-41420-SH, ADAM22 shRNA (h) Lentiviral Particles: sc-41419-V and ADAM22 shRNA (m) Lentiviral Particles: sc-41420-V.

Molecular Weight of ADAM22: 100 kDa.

Positive Controls: rat cerebellum extract: sc-2398 or human liver extract: sc-363766.

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: 1:10000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.
2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000).

DATA

ADAM22 (C-2): sc-373931. Western blot analysis of ADAM22 expression in rat cerebellum tissue extract.

ADAM22 (C-2): sc-373931. Western blot analysis of ADAM22 expression in human liver tissue extract.

RESEARCH USE

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

STORAGE

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

PROTOCOLS

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