ADAM10 (A-3): sc-48400

BACKGROUND
ADAM (a disintegrin and metalloprotease) proteins are a family of over 30 membrane-anchored, glycosylated, Zn²⁺-dependent proteases that are involved in cell-cell, cell-matrix interface-related processes including fertilization, muscle fusion, secretion of TNF (tumor necrosis factor α) and modulation of the neurogenic function of Notch and Delta. 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 brain, testis, epididymis, ovary, breast, placenta, liver, heart, lung, bone and muscle, and catalyze proteolysis, adhesion, fusion and intracellular signaling. ADAM10 is a TNF-processing enzyme that cleaves pro-TNF, a membrane-bound precursor protein, at Ala76-Val77, which causes membrane shedding of soluble TNF.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: ADAM10 (human) mapping to 15q21.3; ADAM10 (mouse) mapping to 9 D.

SOURCE
ADAM10 (A-3) is a mouse monoclonal antibody raised against amino acids 1-300 of ADAM10 of human origin.

PRODUCT
Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ADAM10 (A-3) is available conjugated to agarose (sc-48400AC), 500 µg/ml, for Western Blotting (WB), Immunoprecipitation (IP), Immunofluorescence (IF), Immunohistochemistry (IHC), and FCM.

APPLICATIONS
ADAM10 (A-3) is recommended for detection of ADAM10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of active ADAM10: 60 kDa.

Molecular Weight of processed ADAM10: 80 kDa.

Molecular Weight of ADAM10 precursor: 100 kDa.

Positive Controls: HuT 78 whole cell lysate: sc-2208, Jurkat whole cell lysate: sc-2204 or NIH/3T3 whole cell lysate: sc-2210.

DATA

ADAM10 (A-3): sc-48400. Western blot analysis of ADAM10 expression in HuT 78 (A), Jurkat (B) and NIH/3T3 (C) whole cell lysates.

ADAM10 (A-3): sc-48400. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cartilage tissue showing membrane, cytoplasmic and nuclear staining of cells in nerve plexus (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing membrane and cytoplasmic staining of urothelial cells (B).

SELECT PRODUCT CITATIONS

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