

# CUTA (H-8): sc-398827



The Power to Question

## BACKGROUND

CUTA, also known as ACHAP (acetylcholinesterase-associated protein), is the 179 amino acid mammalian homolog of the CUTA *E. coli* protein and is ubiquitously expressed, particularly in brain tissue. Existing as multiple alternatively spliced isoforms, CUTA functions as a homotrimer that is thought to act as a component of an acetylcholinesterase (AChE)-attached complex, suggesting an involvement in AChE regulation. The gene encoding CUTA maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

## REFERENCES

1. Perrier, A.L., et al. 2000. Two distinct proteins are associated with tetrameric acetylcholinesterase on the cell surface. *J. Biol. Chem.* 275: 34260-34265.
2. Navaratnam, D.S., et al. 2000. Hydrophobic protein that copurifies with human brain acetylcholinesterase: amino acid sequence, genomic organization, and chromosomal localization. *J. Neurochem.* 74: 2146-2153.
3. Arnesano, F., et al. 2003. The evolutionarily conserved trimeric structure of CUTA1 proteins suggests a role in signal transduction. *J. Biol. Chem.* 278: 45999-46006.
4. Yang, J., et al. 2008. Overexpression of human CUTA isoform2 enhances the cytotoxicity of copper to HeLa cells. *Acta Biochim. Pol.* 55: 411-415.
5. Bagautdinov, B., et al. 2008. Structure of putative CUTA1 from *Homo sapiens* determined at 2.05 Å resolution. *Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun.* 64: 351-357.

## CHROMOSOMAL LOCATION

Genetic locus: CUTA (human) mapping to 6p21.32; Cuta (mouse) mapping to 17 A3.3.

## SOURCE

CUTA (H-8) is a mouse monoclonal antibody raised against amino acids 77-179 mapping at the C-terminus of CUTA of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CUTA (H-8) is available conjugated to agarose (sc-398827 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398827 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398827 PE), fluorescein (sc-398827 FITC), Alexa Fluor® 488 (sc-398827 AF488), Alexa Fluor® 546 (sc-398827 AF546), Alexa Fluor® 594 (sc-398827 AF594) or Alexa Fluor® 647 (sc-398827 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398827 AF680) or Alexa Fluor® 790 (sc-398827 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

CUTA (H-8) is recommended for detection of CUTA 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), 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).

Suitable for use as control antibody for CUTA siRNA (h): sc-95128, CUTA siRNA (m): sc-105251, CUTA shRNA Plasmid (h): sc-95128-SH, CUTA shRNA Plasmid (m): sc-105251-SH, CUTA shRNA (h) Lentiviral Particles: sc-95128-V and CUTA shRNA (m) Lentiviral Particles: sc-105251-V.

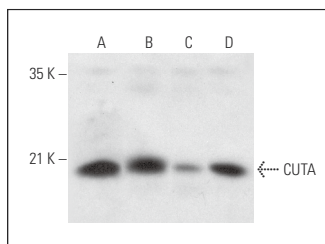
Molecular Weight of CUTA: 20 kDa.

Positive Controls: T98G cell lysate: sc-2294, THP-1 cell lysate: sc-2238 or IMR-32 cell lysate: sc-2409.

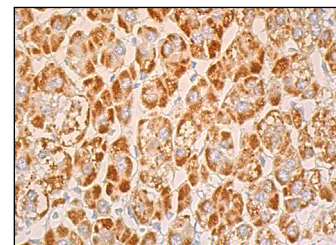
## RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



CUTA (H-8): sc-398827. Western blot analysis of CUTA expression in T98G (A), THP-1 (B), SK-N-MC (C) and IMR-32 (D) whole cell lysates.



CUTA (H-8): sc-398827. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214. Detected with m-IgGκ BP-B: sc-516142 and ImmunoCruz® ABC Kit: sc-516216.

## 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.