

DRAM (H-128): sc-98654

BACKGROUND

DRAM (damage-regulated autophagy modulator) is a multi-pass membrane protein that belongs to the TMEM77 family of proteins and localizes to the lysosome membrane. DRAM is a highly conserved protein across many species and contains six transmembrane domains and an endoplasmic reticulum (ER) signal peptide. Its expression is induced by both p53 and p73, and it acts as a key player that is required (but not sufficient) for p53-induced autophagy and apoptosis. Although its expression is also induced by p73, DRAM is dispensable for p73-mediated apoptosis. As is suggested by its lysosomal localization, DRAM may participate in the degradation of proteins or in trafficking through the secretory pathway. In addition, DRAM expression is downregulated in human cancers, implying a profound role for DRAM in tumor development.

CHROMOSOMAL LOCATION

Genetic locus: DRAM1 (human) mapping to 12q23.2; Dram1 (mouse) mapping to 10 C1.

SOURCE

DRAM (H-128) is a rabbit polyclonal antibody raised against amino acids 111-238; deletion 194-224 mapping at the C-terminus of DRAM of human origin.

PRODUCT

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

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.

APPLICATIONS

DRAM (H-128) is recommended for detection of DRAM 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). DRAM (H-128) is also recommended for detection of DRAM in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DRAM siRNA (h): sc-96209, DRAM siRNA (m): sc-143169, DRAM shRNA Plasmid (h): sc-96209-SH, DRAM shRNA Plasmid (m): sc-143169-SH, DRAM shRNA (h) Lentiviral Particles: sc-96209-V and DRAM shRNA (m) Lentiviral Particles: sc-143169-V.

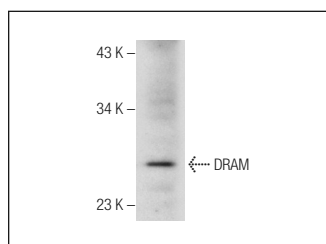
Molecular Weight of DRAM: 26 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

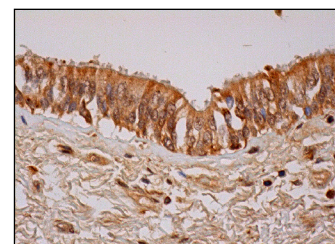
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



DRAM (H-128): sc-98654. Western blot analysis of DRAM expression in K-562 whole cell lysate.



DRAM (H-128): sc-98654. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bronchus tissue showing cytoplasmic and nuclear staining of respiratory epithelial cells.

SELECT PRODUCT CITATIONS

- Salem, A.F., et al. 2012. Two-compartment tumor metabolism: autophagy in the tumor microenvironment and oxidative mitochondrial metabolism (OXPHOS) in cancer cells. *Cell Cycle* 11: 2545-2556.
- Hong, M.Y., et al. 2012. Effect of c-Jun NH₂-terminal kinase-mediated p53 expression on neuron autophagy following traumatic brain injury in rats. *Chin. Med. J.* 125: 2019-2024.
- Chatterjee, S., et al. 2012. Low concentration of mercury induces autophagic cell death in rat hepatocytes. *Toxicol. Ind. Health*. E-published.

PROTOCOLS

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



Try **DRAM (M3-P4B4): sc-81713**, our highly recommended monoclonal alternative to DRAM (H-128).