

DAP-5 (G-20): sc-13736

BACKGROUND

Death-associated protein 5 (DAP-5) (also known as p97 and NAT1) is a member of the eukaryotic translation initiation factor 4G (eIF4G) family. DAP-5 is ubiquitously expressed and is highly conserved among species. In response to activated FAS or p53, caspase cleaves DAP-5 at position 790 to yield a C-terminal truncated protein which is capable of forming complexes with eIF4A and eIF3. DAP-5 has homology to the carboxy-terminal portion of eIF4G, but lacks the N-terminal region of eIF4G, which is responsible for association with the CAP binding protein eIF4E. By forming translationally inactive complexes with eIF4A and eIF3, but not with eIF4E, DAP-5 functions as a general repressor of translation. During apoptosis, the caspase-activated DAP-5 can mediate CAP-independent translation at least from its own internal ribosome entry site, thus resulting in a positive feedback loop responsible for the continuous translation of DAP-5. DAP-5 is also required for cellular differentiation, as it controls specific gene expression pathways.

CHROMOSOMAL LOCATION

Genetic locus: EIF4G2 (human) mapping to 11p15.3; Eif4g2 (mouse) mapping to 7 F1.

SOURCE

DAP-5 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of DAP-5 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.

Blocking peptide available for competition studies, sc-13736 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

DAP-5 (G-20) is recommended for detection of DAP-5 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).

DAP-5 (G-20) is also recommended for detection of DAP-5 in additional species, including bovine.

Suitable for use as control antibody for DAP-5 siRNA (h): sc-35169, DAP-5 siRNA (m): sc-35170, DAP-5 shRNA Plasmid (h): sc-35169-SH, DAP-5 shRNA Plasmid (m): sc-35170-SH, DAP-5 shRNA (h) Lentiviral Particles: sc-35169-V and DAP-5 shRNA (m) Lentiviral Particles: sc-35170-V.

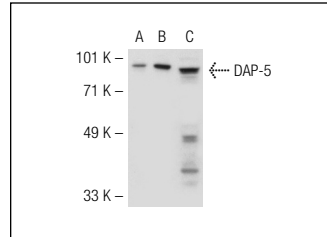
Molecular Weight of DAP-5: 97 kDa.

Positive Controls: HeLa nuclear extract : sc-21260, DAP-5 (m): 293T Lysate: sc-126712 or DAP-5 (h2): 293T Lysate: sc-112865.

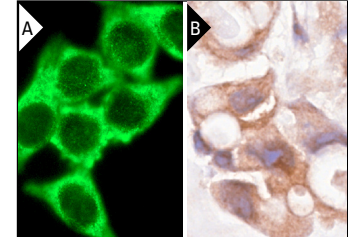
STORAGE

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

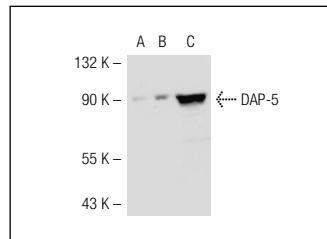
DATA



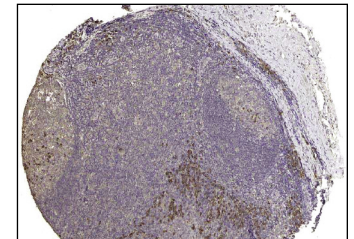
DAP-5 (G-20): sc-13736. Western blot analysis of DAP-5 expression in non-transfected: sc-117752 (A) and human DAP-5 transfected: sc-112865 (B) 293T whole cell lysates and HeLa nuclear extract (C).



DAP-5 (G-20): sc-13736. Immunofluorescence staining of methanol-fixed HeLa cells (A) and immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast tumor (B) showing cytoplasmic staining.



DAP-5 (G-20): sc-13736. Western blot analysis of DAP-5 expression in non-transfected: sc-117752 (A) and mouse DAP-5 transfected: sc-126712 (B) 293T whole cell lysates and HeLa nuclear extract (C).



DAP-5 (G-20): sc-13736. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing strong cytoplasmic staining in follicle cells and weak cytoplasmic staining in epithelial and non-follicular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

- Linder, B., et al. 2008. TDRD3 is a novel stress granule-associated protein interacting with the fragile-X syndrome protein FMRP. *Hum. Mol. Genet.* 17: 3236-3246.
- Guenther, U.P., et al. 2009. IGHMBP2 is a ribosome-associated helicase inactive in the neuromuscular disorder distal SMA type 1 (DSMA1). *Hum. Mol. Genet.* 18: 1288-1300.

RESEARCH USE

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

PROTOCOLS

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



Try **DAP-5 (F-2): sc-137011** or **DAP-5 (B-8): sc-137131**, our highly recommended monoclonal alternatives to DAP-5 (G-20).