

Cypher (T-17): sc-82848

BACKGROUND

Cypher, also known as LDB3 (LIM domain binding 3), ZASP (Z-band alternatively spliced PDZ-motif protein), ORACLE, PDLIM6 (PDZ and LIM domain 6), ldb3z1 or ldb3z4, is a 727 amino acid protein that localizes to the perinuclear region of the cytoplasm and contains 3 LIM zinc-binding domains. Expressed primarily in skeletal muscle and at lower levels in brain, placenta and heart, Cypher is thought to function as an adaptor protein that, via its LIM domains, couples PKC-mediated signaling in striated muscle to the cytoskeleton. Defects in the gene encoding Cypher are associated with dilated cardiomyopathy 1C (CMD1C), dilated cardiomyopathy with left ventricular non-compaction and ZASP-related myofibrillar myopathy (MFM), all three of which are characterized by defects in cardiac muscle form and/or function. Six isoforms of Cypher exist due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: LDB3 (human) mapping to 10q23.2; Ldb3 (mouse) mapping to 14 B.

SOURCE

Cypher (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Cypher 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-82848 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Cypher (T-17) is recommended for detection of Cypher 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).

Cypher (T-17) is also recommended for detection of Cypher in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Cypher siRNA (h): sc-77078, Cypher siRNA (m): sc-77079, Cypher shRNA Plasmid (h): sc-77078-SH, Cypher shRNA Plasmid (m): sc-77079-SH, Cypher shRNA (h) Lentiviral Particles: sc-77078-V and Cypher shRNA (m) Lentiviral Particles: sc-77079-V.

Molecular Weight of Cypher prominent isoforms: 32/78 kDa.

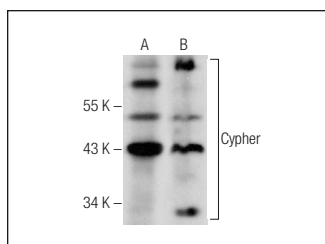
Molecular Weight of additional Cypher isoforms: 22-43/50-83 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, mouse heart extract: sc-2254 or rat skeletal muscle extract.

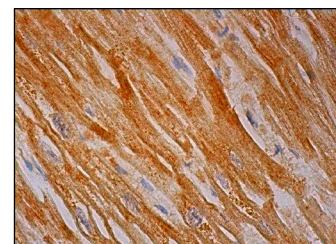
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Cypher (T-17): sc-82848. Western blot analysis of Cypher expression in mouse heart (A) and rat skeletal muscle (B) tissue extracts.



Cypher (T-17): sc-82848. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

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 or our catalog for detailed protocols and support products.



Try **Cypher (E-8): sc-374359** or **Cypher (22): sc-136380**, our highly recommended monoclonal alternatives to Cypher (T-17).